1865 THE UNIVERSITY OF MAINE

MINERVA

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THE HONORS COLLEGE AT THE UNIVERSITY OF MAINE

2013

IL FAUT CULTIVER NOTRE JARDIN • WE MUST TEND OUR GARDEN

THE UNIVERSITY OF MAINE
Honors College

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MINERVA

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Front Cover: The new Honors Wing of Estabrooke Hall provides a backdrop for Charlie's Terrace (photo credit: John Jemison)

Opposite: Walkway of Charlie's Terrace.

Back Cover: An Honors College visit to Estabrooke Hall during construction.

THE UNIVERSITY OF MAINE

Planting seeds

Late this past summer I entered Colvin Hall with a new sense of purpose, and a new job: Dean of the Honors College. Honors has held a special place in my academic heart ever since Charlie Slavin invited me to lecture/lead discussions in the Honors 201 course and eventually had me serving as a preceptor. This was 1998 or so – before Charlie had found a new home for the Thomson Honors Center in Colvin Hall. Colvin Hall is a tangible representation of an important idea: the Honors community of scholars. When Charlie left us, suddenly and too soon, he left us with an enduring vision of an Honors College that has strong traditions, a thriving mission, and a bright future.

Thus it was that a few short months ago, I found myself in 100 D.P. Corbett Hall welcoming the University of Maine Honors Class of 2017. A daunting task, really. What can you say to over 300 first-year students that will be memorable, profound, life-changing, or at least get a few laughs? Though I was as new at my role as they were at theirs, the students I spoke with that day listened respectfully when I suggested that they should not spend the next four years preparing to go out into the real world. Rather they should recognize that they are already and always in the real world, that an education in the Honors College at UMaine is an opportunity to learn and to live, really live what will surely be among the most memorable, the most influential, the most REAL years of their lives. The Class of 2017 asked insightful and important questions and the insightful and dedicated staff of the Honors College answered them. But what struck me the most about the Class of 2017 was what a friendly group it is. When I suggested folks introduce themselves to a person nearby that they didn't already know, the circles of hellos and introductions and handshakes rippled out everywhere with no sign of stopping! Clearly the sense of Honors community is thriving in the Class of 2017.

A future MINERVA will recount the academic journey of this incoming class. This issue is devoted to recognizing the accomplishments of the class that has just graduated as well as to recount a year in the life of Honors at UMaine. It is with great pride that I invite you to meet the Honors graduates of the University of Maine Class of 2013 who are all represented in these pages. You will also find stories that give a sense of the flow of the Honors year, that celebrate student and faculty accomplishments, that recognize the work of our dedicated staff, and that record the visits of distinguished scholars and alumni. New this year, you will find a section devoted to thanking our supporters for the gifts that allow us to add to the richness of the Honors experience. Also new this year is an opportunity to build a new Honors tradition through the Honors College Legacy Fund. Contributions to this fund will honor our heritage, allow us to plant new seeds of opportunity, and nurture the growth and vitality of the Honors College for many years to come.

Please join me in celebrating the outstanding community of scholars and doers that is The Honors College at the University of Maine.

François Amar

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On a Year as Interim Dean

Obviously, and terribly, my year as interim dean of the Honors College began suddenly with the unexpected death of long-time Honors Dean, Charlie Slavin. I had been a preceptor in the *Civilizations* sequence for six years and had experience in Honors administration at another university, so I was not entirely unprepared. But I was entirely overwhelmed for quite some time. Turns out there is a lot of work to being Honors Dean!

Eventually I got my feet under me, and especially because I was working with our great Honors staff (aka our little Honors family), I became comfortable in what I never stopped thinking of as Charlie's office. The best part of the job really was working with our little group in Colvin Hall—and talking with the many Honors students who found their way through the open door of my office. But I can also point to some accomplishments about which I do feel good.

If I ever expected mine would be a "caretaker administration" I quickly learned otherwise. Some of the things I worked hardest on were "behind the scenes" things that most students and visitors would never be aware of. We were successful in moving several of our honors faculty onto the tenure track, and we put in place and made important use of faculty governance bodies and procedures, which the College had lacked.

More visible was our successful project to build a lasting memorial to Charlie Slavin in the form of the beautiful new "Charlie's Terrace" next to Colvin Hall. Some of the high points of that project are addressed elsewhere in this issue, but in this account of my year as dean I could not leave out the great feeling of happiness and pride I get every time I walk by the Terrace—or plop myself down into one of our "Charlie orange" Adirondacks to enjoy our wonderful fall weather this year.

Charlie's Terrace was also a key part of another initiative I undertook as dean—to get people talking and thinking about "the Honors Campus" within the larger University campus. Sitting as it does between the Thomson Honors Center in Colvin Hall and our future Honors facilities in Estabrooke Hall, Charlie's Terrace ties together beautifully the view of the Honors Campus that greets those who enter the University via the main entrance on College Avenue.

Quite a year. I am very happily back to being a preceptor in HON 211! I was personally very pleased with the selection of François Amar as our new Honors Dean. The College is in very good hands. And I look forward to working with him as part of the Honors community for many years to come.

Tending the Garden

As I sit in an orange Adirondack chair in Charlie's Terrace, the final words of Voltaire's *Candide* come to mind: *Il faut cultiver notre jardin*—We must tend our garden. With these words, Voltaire ends his account of his hero's travels and tribulations and suggests that the practical and pragmatic side of life should be the real guide for philosophy. I think of this phrase for two reasons. First, because of all the ages we explore in Honors, I believe Charlie Slavin felt most at home with the Enlightenment and its thinkers, particularly Newton. Charlie appreciated theory and the abstract—he was a mathematician after all—but he was a doer, a pragmatic person who was eager to turn ideas and visions into reality. We are the inheritors of all the pragmatic work that Charlie did along with his colleagues, coworkers, and students—work that grew the Honors program and eventually formed the Honors College. Second, Charlie had such a love of gardens and gardening. Gardening at home was a source of pleasure for him and his family. Tending the metaphorical gardens in and around Colvin Hall was the work he loved and was good at. The Terrace is a beautiful, tangible reminder of our friend Charlie and of the metaphoric task he left to us: to plant and nurture seeds of opportunity for the students in Honors.

I will always be grateful to Professor David Gross for stepping in as interim Dean of the Honors College less than a month after we all got the terrible news about Charlie Slavin's sudden passing. David, as shaken as the rest of us, took the reins of the College and kept us together while giving us the space to grieve the loss of our friend. David's work this past year to convert Honors faculty lines to the tenure track and to create new structures of faculty governance will be a lasting reminder of his time as Honors Dean. As I took the job of Dean last summer, David showed me the best paths through the garden, how to avoid the thorns, and pointed out the spots that might need a bit of mulch. Thank you, David, for your continued presence and support.

Just as gardens retain the signs of the cultivation of past years, the footprints of Charlie's signature crocs indelibly mark the Honors College halls. His stewardship of the place and its mission are visible in the physical spaces of Colvin and Balentine Halls. Soon Estabrooke Hall will reopen with a new Honors classroom and offices for faculty and staff of the College.

I am looking forward to working on ways to enhance the opportunities available to the students and faculty of the Honors College. I hope to encourage new faculty from a broad range of disciplines to contribute to the Honors endeavor either in the *Civilizations* sequence or as mentors to undergraduate researchers and thesis students. New opportunities for travel abroad, internships and collaborative work with community partners will also be high on my list for the next year.

Charlie's Terrace

This nondescript triangle of ground (left) sat next to Colvin Hall and for years, former Honors Dean Charlie Slavin had said, "We should do something with that piece of grass." As of Fall 2013, we finally have (right).

October 2012: There were some inherent logistical issues with moving the Union down to the river, but the idea of a terrace caught on. The Honors College staff began imagining a terrace in close proximity to Colvin Hall on "that piece of grass." Emily Cain, then Coordinator of Advancement; Barbara Ouellette, Coordinator of Academic Services and Budget; and Interim Dean David Gross put their creative energy behind the idea, believing the terrace must reflect Charlie's vision for an outdoor classroom, be a place where the honors community could gather together, and include Adirondack chairs, which Charlie especially liked.

September 12, 2013: Construction of Charlie's Terrace began at the end of July (above left & center), and by the first day of classes we had a beautiful outdoor classroom space (above right & below left). Almost one year to the day after Bob Franzosa had suggested building a terrace by the river in honor of his friend, he spoke at the opening of Charlie's Terrace (right), marveling at the power of ideas. Drizzle and dark skies could not dampen the spirits of those of us gathered to commemorate Charlie, a dean who knew the possibilities and pleasures of gathering outdoors (below).

*Terrace Opening Photos Courtesy of Adam Kuykendall

September 14, 2012: At the celebration of Charlie's life his long-time friend, mathematics professor Bob Franzosa (right), spoke about their time together as graduate students at the University of Wisconsin. One of the memories Bob shared was Charlie's fondness for hanging out on the UW terrace. During his talk, Bob suggested taking the Memorial Union, moving it down by the Stillwater River, and building a Terrace in Charlie's memory.

January 2013: Fundraising for Charlie's Terrace began in earnest, though donations began coming in before the official start of the campaign. Charlie's friends, family, colleagues and Honors College supporters overwhelmed us with their generosity. Many took advantage of naming opportunities (above right): benches, trees, bright orange (Charlie's favorite color) Adirondack chairs and, most popularly, engraved bricks (below center). Over eighty three bricks have been purchased to date, and we hope that donating bricks to Charlie's Terrace will become an Honors College tradition (see pg 8).

Above and Right:

Home-coming on Charlie's Terrace 2013

There are a number of people to thank for generously supporting this project. However, there is one person inparticular who deserves special recognition. . .

Thank you, Charlie, for all of your ideas. This was definitely a great one!

Thank you for supporting the Honors College Legacy Fund

1865 THE UNIVERSITY OF MAINE
Honors College

The Honors College Legacy Fund

The Honors College Legacy Fund was established in Fall 2013 to provide the Honors community a way to create a lasting acknowledgement of student achievement, faculty guidance, and special programs. The Fund was inspired by the outpouring of support for Charlie's Terrace. As we celebrated the opening of the Terrace (pages 6-7) it was hard not to be inspired by the bricks expressing heartfelt testaments to Charlie's influence and legacy. Other bricks acknowledged an enduring connection to Honors or were donated to honor a graduate or mentor (examples at right). It seemed clear that a new tradition was being born, and in creating the Honors College Legacy Fund, we are cementing that tradition. All future funds from the purchase of personalized bricks to be displayed in Charlie's Terrace or adjacent walkways will be used to support the mission of the Honors College.

The Charlie Slavin Research Fund is already supporting undergraduate research!

The Charlie Slavin Research Fund was established with a gift from Charlie's wife, Nancy Hall, and many of Charlie's family, friends, and colleagues from across the country after his unexpected death in 2012. This fund is intended to provide small grant awards for undergraduate research being conducted by Honors students.

We are excited to announce that this fund, just barely a year old, is already supporting the undergraduate research of our Honors students. The following students received Charlie Slavin Research Funds for the Fall 2013 semester:

Shannon Brenner '14 (Sociology)

Christine Gilbert '14 (International Affairs)

Raymond Updyke '14 (Accounting)

Sydney Walker '14 (Psychology, Theatre)

Gwendolyn Beacham '15 (Molecular and Cellular Biology)

Eliot Gagne '16 (Biochemistry)

Bryer Sousa '16 (Chemistry)

Gwen Beacham '15
George J. Mitchell Peace Scholarship Recipient

Gwen Beacham '15, an Honors student majoring in molecular and cellular biology and minoring in chemistry, was awarded one of two 2013-2014 George J. Mitchell Peace Scholarships.

Gwen will study in Ireland in the spring of 2014. This scholarship, named after Senator George J. Mitchell, funds a student exchange program between Maine and Ireland. While she is abroad, Gwen hopes to travel throughout Europe. Although she will not know her class schedule until she arrives, she would like to take courses in geology, chemistry, and physics or astronomy. She also hopes to take a French class, along with an Irish culture or history class.

When she returns, Gwen will continue her involvement with Engineers Without Borders; the Dance, Hip Hop, and Ballet Club; the UMaine Mitchell Scholars; Rotaract Club; the Honors College Student Advisory Board; and the Fair Elections Practices Commission for Student Government. She will also continue her thesis research on bacteriophages, which she began her first year in HON 155. Upon graduating from UMaine, Gwen plans to attend graduate school to earn her Ph.D.

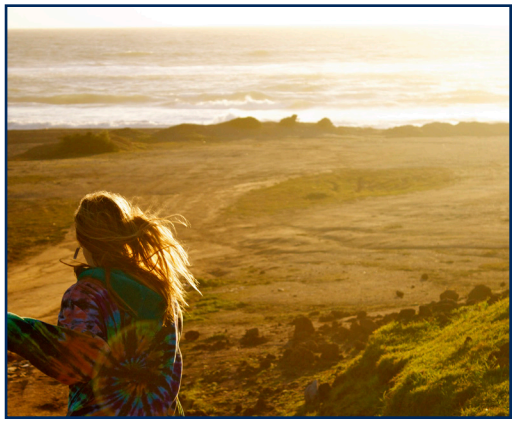
Jones Thesis Fellow: Theo Koboski '14

This year's recepient of the Rendle A. Jones '65 and Patricia K. Jones '65 Honors Thesis Fellowship is **Theo Koboski** '14, a marine science major and political science minor. With a focus on marine policy, Theo spent his summer doing research in Hawaii and is now working with Dr. Teresa Johnson, his thesis advisor, on research involving the impact of longline fishing on American Samoan indigenous participation in harvesting pelagic fish. Theo is also interested in the policy processes for developing ocean renewable energy, such as tidal power, in the Cobscook Bay. The Jones Thesis Fellowship annually awards $2,200 to a thesis student who is pursuing research on legal service in the public arena.

Charles V. Stanhope '71 Study Abroad Fellowship: Helping Blaise Collett '15 Pursue her Passion

Blaise Collett '15, an international affairs major, is this year's Stanhope Study Abroad Fellowship recipient. Blaise, who hopes to become an international business professor or open a Mexican restaurant, is studying in Argentina and is grateful for this opportunity.

I have a deep passion for travelling, and the Stanhope Fellowship helped make this passion more accessible to me. I am studying in Córdoba, Argentina, which is in the central/north region of the country. I have been here for two and a half months, and it's great. I have been able to travel on my school breaks. I have gone to Chile and am actually headed to Chile for a second time tomorrow. I have learned lots of Spanish and met many amazing people. It has been an unforgettable experience. At the end of the semester I plan on travelling down to Patagonia, Argentina to explore the vast, largely uninhabited territory at the bottom of the world.



Barbara Ouellette, 2013 Outstanding Professional Employee Award

Photo Credit: Kathy Rice

Barbara Ouellette, Honors College Coordinator for Student Academic Services and Budget, received the 2013 University of Maine Outstanding Professional Employee Award. With over thirty years of dedicated service to the University of Maine, this award recognizes Barbara's unfailing commitment to the Honors College and its students, faculty and staff.

Barbara's official title does not begin to cover the range of responsibilities she handles each day. Coordinating student academic services, advising the dean, managing the budget, teaching in the Explorations program, and organizing course schedules are only a few of the many and varied tasks she undertakes with unparalleled grace and professionalism. In any one day, Barbara is an advisor, an advocate, a mentor, a problem solver and everyday she is a role model. Dr. Ruth Nadelhaft, a former director of the then Honors Program, observed: "Directors and Deans come and go, [but] Barbara Ouellette was–and still is–the constant at the heart of what is now the Honors College." Dr. Sam Schuman, another former director, echoed these sentiments:

"More than any other individual, Barbara Ouellette has been responsible for the steady progress and effective operation of the Honors Program/Honors College at the University of Maine. When Barbara joined the program, it was led by a part-time faculty director and housed in a temporary facility: today, it is an Honors College, led by a Dean, and with a fine and permanent home on campus. Barbara has not just seen all these changes, she has been instrumental in making them happen. Honors directors and deans have relied on her knowledge of the operation and her good sense. Honors instructors have depended upon her assistance. Most of all, generations of honors students have considered Barbara a friend, counselor and facilitator before, during and after their honors careers. Barbara Ouellette richly deserves the University's Outstanding Professional Employee award."

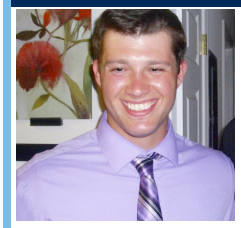
Congratulations, Barbara!

~1,760 HOURS LATER...

Having spent approximately 31% of their waking hours together over the course of the last year, *The Associates* are currently experiencing some anxiety about their upcoming separation. They briefly considered co-applying to graduate school, but it proved too challenging to merge environmental toxicology and stage management into a single discipline.

Next fall, Bre hopes to find herself somewhere in the northwest, whereas Sam could land anywhere from Virginia to California. But even when they're separated by miles (rather than a few feet), they will still have their time (approximately 3,520 total hours) as Honors College Associates to reflect upon. Together they have braved InDesign, conquered HON 391, discovered Colvin has a working (electric) fireplace, made themselves more available to students and faculty, and successfully saw two new Honors deans transition into the College. Sam and Bre have thoroughly enjoyed their time as *The Associates* thus far and are looking forward to their remaining 1,120 hours.

Carolyn Reed Fellow: Ryan Hall '14



The 2013 recepient of the Carolyn Reed Pre-Medical Thesis Fellowship is psychology major **Ryan Hall** '14. Under the direction of Dr. Thane Fremouw, Ryan has been able to incorporate his neuroscience and premedical studies minors into his thesis work. His thesis, *Long term effects of chemotherapy on cognition: therapeutic potential of anti-depressants*, will examine the effects of anti-depressants on the health and number of brain cells in mice who have undergone chemotherapy treatment.

Ryan plans to use the Reed Fellowship funds to help pay for his medical school applications. Ultimately, Ryan hopes to follow a path similar to that of Dr. Carolyn Reed and pursue a career as a surgeon.

The Reed Fellowship is awarded annually to support Honors students whose thesis research resembles the passion for and dedication to medicine evident in the work and career of Dr. Reed.

INBRE Fellowships

This year the Honors College and the Maine IDeA Network for Biomedical Research Excellence (INBRE) are pleased to announce the recipients of seven Honors Thesis Fellowships and three Junior Year Research Awards.

Thesis Fellowships:

Joshua Jones (Biochemistry) with Robert Wheeler
Jordan Gagne (Animal and Veterinary Science) with Anne Lichtenwalner
Jinlun Bai (Biology, Psychology) with Harold Dowse
Hannah Dewey (Mathematics) with Andre Khalil
Jacob Mauthe (Microbiology) with Carol Kim
Joseph Fricks (Bioengineering) with Rosemary Smith
Randilyn Driver (Biology) with Vivian C. H. Wu

Junior Year Research Awards:

Gwendolyn Beacham (Molecular & Cellular Biology) with Sally Molloy
Katrina Harris (Microbiology) with Keith Hutchison
Stephanie Wood (Biology) with Sharon Ashworth

CUGR

Once again, the Honors College was well represented at the annual Center for Undergraduate Research (CUGR) Academic Showcase. In addition to their showcase presentations, the following Honors students received fellowships from CUGR:

Gwen Beacham (Molecular & Cellular Biology), **Kristyn Daigle** (Biochemistry), **Christie Edwards** (Biology/Psychology), **Molly Flanagan** (Marine Sciences), **Katrina Harris** (Microbiology), **Emily Hinkle** (Food Science & Human Nutrition), **Joshua Jones** (Biochemistry), **Morgan Kinney** (Psychology), **Emily Lovejoy** (Biochemistry), **Amy Michaud** (Biology & Ecology), **Kyle Nolan** (Electrical & Computer Engineering), **Chris Paradis** (Psychology), **Jill Pelto** (Earth Sciences & Studio Art), and **Abby Szotkowski** (Psychology).

Three Honors students also received awards at the spring Showcase:

2nd Prize Oral Presentation: **Emily Hinkle** (Food Science and Human Nutrition), *Cooking and Varietal Effects on Potato In Vitro Bile Acid Binding Capability*

2nd Prize Poster Presentation: **Joshua Jones** (Biochemistry) *Morphogenesis Mediates Candida albicans Dissemination*

3rd Prize Poster Presentation: **Paige Martin** (Psychology), *The Effect of Cataract Surgery on Depression and Vision-Related Quality of Life*

Jameson Ford '14 received a CUGR Summer Fellowship for his research on *The Effects of Ketamine on Motor Coordination and Pain Sensitivity in Ethanol-withdrawing Animals*.

Honors is getting new space in Estabrooke!

The Honors College is continuing to grow, and we are expanding into Estabrooke Hall! Set to open in late spring 2014, the first floor of the North wing of Estabrooke Hall will become an extension of our growing "Honors Campus." This new Honors space will have faculty and staff offices, collaborative student space, and an additional Honors classroom.

Building a Culture of Service &

Community Engagement in the Honors Curriculum

Honors students are deeply engaged in service activities on and off our campus. Building on this tradition, the Honors tutorial, *Justice or Charity: Community Service in Theory and Practice*, provides an opportunity for students to put theory into practice in collaborative university-community partnerships working on issues facing our local communities. This year students addressed poverty and food insecurity in partnership with Crossroads Resources, a food pantry and thrift store in Old Town, Maine. Students developed an informational brochure on food insecurity, gave away coffee to raise awareness on how much food could be purchased with the money spent on one cup of coffee, worked at Crossroads, volunteered at local organizations such as the Animal Shelter, collected canned goods and participated in fund raisers, all the while reflecting on the issues and impact of their community service.

Here's what the students are saying:

Katherine Harrington (below, left): *"I have always viewed myself as someone that was aware of need...but until this class I have never thought so deeply about service."*

Cameron Huston (above, left): *"...the advantage of service learning is that it provides one of the best ways to force students to reflect on what they are learning and how it effects. . .their place in the world."*

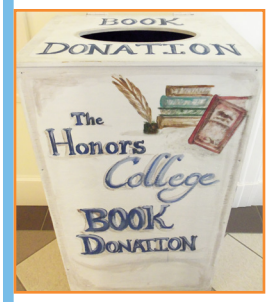
Mariah Picard: *"One of the biggest benefits of this class is being able to actually use what we learn in class..."*

Matt Sheltra: *"The service based class... helps you gain experiences working in fields you may not be completely comfortable in."*

Marissa Rublee: *"students have reached out to their network, showed leadership with their projects, and demonstrated perseverance ... We have learned to work as a collaborative group ... something that you don't often see in a more traditional course."*

Honors College Book Collection

During the spring 2011 semester, two honors students initiated an Honors Book Collection. The Honors College Book Collection was designed to help students who have trouble affording their books. At the end of each semester, current students in the *Civilizations* Sequence are asked to consider donating the Honors books that they would normally sell.



Two and a half years later, the book collection has helped roughly one hundred students through full and partial book awards!

The Citizen Scholar Initaitive

The Citizen Scholar Initiative is a broader and more comprehensive effort currently underway to incorporate community-engaged learning in Honors. The sequence of courses being planned for the Initiative incorporates community-based learning that challenges students academically while fostering their civic identity. The first course in the sequence, *Citizen Scholar: Introduction to Community Engagement*, will run as a pilot course in Spring and Fall 2014 as we continue to seek support to fully implement the Citizen Scholar Initiative.

Community Engagement in Honors

2013 Fall Welcome Weekend Day of Service

90 minutes. 20,088 meals. A record breaking achievement by first year Honors students who, along with other members of the class of 2017, packaged meals for Stop Hunger Now as part of their Welcome Weekend Day of Service project. Stop Hunger Now provides meals to support "feeding programs in schools and orphanages around the world" (Stop Hunger Now). These meals were headed for Haiti, but an additional 4000 meals were also packaged and distributed to local food banks to address hunger issues closer to home.

"I'm so glad this is our service project! This is the best thing I could have woken up to this morning." **Grace Avakian** '14, Colvin Hall Resident Assistant and Honors student.

One group of Honors students traveled to downtown Orono to volunteer at the local community gardens. The CISV (Children International Summer Village) garden program grows food so that once a month, ten times a year, they can make high-quality, locally-grown meals for around 100 people at a local homeless shelter. The Orono Community garden grows and delivers vegetables to two local low-income housing developments. The first-year Honors students helped prepare food, harvest vegetables, turn compost, and weed and cover crop the gardens.

Other Honors students put together birthday kits for distribution by local food pantries, while yet another group helped clean and stock the emergency response vehicle for the Down East Emergency Medicine Institute (DEEMI) located in Orono. In the end, almost 200 first year Honors students were engaged in community service projects on and off campus.

Welcome Weekend Day of Service is coordinated by the University of Maine's Bodwell Center for Service and Volunteerism in collaboration with Residence Life. In 2013, 1800 incoming students participated in projects across campus and in the surrounding communities, up 125% since its inception in 2010. The Welcome Weekend Day of Service provides opportunities for students who are new to university and new to UMaine's campus to interact with each other as well as with their project leaders—upper level students, staff and faculty—as they work together on service projects. This Day of Service also taps into an existing tradition in the Honors College which encourages our students to become civically engaged both at home and abroad.

Why I Teach in the Honors College

Sarah Harlan-Haughey, Honors-CLAS Preceptor of English

I teach Honors because I want to be part of a cross-generational interdisciplinary conversation. I love that we all—students, faculty, and staff—come from very different backgrounds and perspectives, yet can take part in a joint scholarly enterprise that can broaden all our horizons. I think that the modern university must begin to see how academic disciplines are interrelated, not discrete entities, and the Honors College has been at the vanguard of this crucial re-envisioning of the university.

I was an honors student as an undergraduate, and that experience changed my life. I got the supportive classroom atmosphere and the individual attention I needed to bloom into the strange beast I am today—a medievalist. It helped me connect the arts I knew and loved to other worlds of literature, language, history, environmental studies, and more. I went to school thinking that I would learn the skills required to perform a specific job, but I left knowing I had actually learned something more important—how to be prepared to think about anything that matters. The Honors College looks beyond the great trap of disciplinary thinking and asks all of us to think about everything and anything that comes our way.

The Honors commitment to an interdisciplinary education—where every supposed field (an outmoded notion anyway) is in conversation with another—is groundbreaking, and we all benefit from it. Students in our college may choose to remain deeply rooted in a single major, but the perspective they gain from their time here will help them become much more balanced individuals. Take my word for it. My friends from my own Honors College days are exciting, well-rounded, and wonderful people doing super-cool things all over the world.

I believe Honors culture is a lifelong culture that values balance and honesty, and the ethically-lived life. It says yes to intellectual curiosity and a fearless engagement with the world. It is ready to live this life in a meaningful way, cultivating study, friendships, loves, and careers with a sense of wonder and openness. The Honors kind of life never steps away from an intriguing challenge or conversation. It says yes to the world. I am very happy to be part of a community of thinkers who push one another to think harder, to look at things in a different way, to take intellectual risks. I am proud that we all try to think outside the box of disciplinary concerns and habits. I look forward to many years as a part of this dedicated community of thinkers in this wonderful place.

Nico Jenkins, Philosophy

When I think about what is required of both teachers and students engaged in the dangerous, thrilling work of carefully reading through a text, I think of travel metaphors and the time I sailed across the Atlantic with two friends in a 30-foot sailboat. As we set off, I watched the last spit of Nantucket disappear. The ocean lay ahead of us, and we knew many others had crossed before us, but we didn't really know what we'd find between those shores. No two crossings are the same, and no one reads a text the same way twice. As a professor, I don't teach my students statistics, regaling them with facts about the length and depth of the ocean. I hope to inspire them, and to provide them with the tools, via the primary texts we read together, to establish their own orientation and to discover life for themselves.

To read a text as I was taught to requires a willingness to leave the known world behind. Sometimes when I read an author like Martin Heidegger, the writing can be so dense, so difficult, that it makes my teeth hurt, a sensation that's accompanied by a feeling of intoxicating panic. But the disorientation of being unmoored and adrift in a sea of new ideas is also delicious. While losing your intellectual bearings in an era of unfettered access to live-streaming media and pre-packaged opinions is increasingly difficult, true learning requires getting lost. Great science, math and literature have all evolved that way. When Galileo built his telescope, it was a tool military men aimed at the horizon to track enemy ships. Galileo instead trained his lens on the celestial 2-D papery disc everyone knew so well, only to discover that the moon was a mountainous 3-D rock.

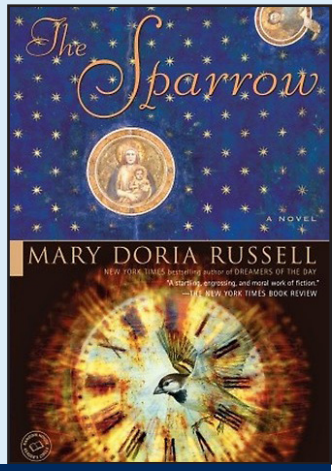
Without getting lost, we content ourselves with the false confidence that the world is a known, unchanging place. As Heraclitus might have said, getting lost means never stepping into the same river twice, never accepting that everything is already known, laid out and mapped. I think also of Descartes, during a winter of isolation in which he'd doubt everything that there is to doubt, going so far as to "consider that the heavens, the earth, colors, figures, sound and all other external things are naught but illusions and dreams," and how from there he arrived at the certainty of the cogito. Being willing to let go of even the most fundamental constructions is a powerful and liberating learning tool, for both students and teachers. I want to propel my students to the precipice of learning in order to share the excitement I've found there. As Heidegger writes, "there is no bridge, only the leap." The history of thought is illustrated by bridges connecting one thinker to another, but the history of thinking is made of leaps into the unknown. It all begins with asking the right questions.

Honors Read 2013

The Sparrow

Mary Doria Russell

The annual Honors Read is given to first-year students to provoke critical thinking and challenge their perceptions. *The Sparrow* does this and more! Through a futuristic story, we follow a group of Jesuit missionaries on a scientific and religious mission to the newly-discovered planet, Rakhat. At first glance *The Sparrow* may seem like a rather dark science fiction novel, but it deals with questions of class structure, the power of knowledge, the nature of culture, and ultimately how we should live.



The Sparrow is an emotionally, morally, and ethically challenging text. For this reason, we have coordinated our annual John M. Rezendes Ethics Initiative events with the Honors Read. The theme for the 2014 John M. Rezendes Ethics Essay Contest is **The Ethics of Discovery**. In addition, we have invited the author, Mary Doria Russell, to be the 2014 John M. Rezendes Visiting Scholar in Ethics, and we are extremely excited that she has agreed to participate in this event. Her talk, entitled "The Age of Discovery From Spain to Space," will be on April 16th – Save the date!

For more information on the Honors Read or the John M. Rezendes Ethics Initiative, visit:
honors.umaine.edu/traditions/

HON 349 Gives Students Career Experience!

Honors students who complete an internship or Research Experience for Undergraduates (REU) program have the option of using it as a tutorial alternative. In the fall of 2013, thirteen students completed an internship or REU tutorial alternative.

Nathan Dunn '15 - Mathematics
Unum

Alexandra Wirth '15 - Mechanical Enginnering
Criterium Mooney Engineers, LLC

Sarah Goode '15 - Busniness Administartion
Conservation Services Group

Evelyn Fairman '15 - Chemical Engineering
Ashland, Inc

Tyler Carrier '15 - Marine Science
REU Western Washington Universirty

Elek Pew '15 - Economics
Tallman Family Farms, LLC

Robyn King '15 - Social Work & Psychology
Sanford Regional Technical Center

Jill Pelto '15 - Earth Science & Studio Art
North Cascade Glacier Climate Project

Scott Parkhill '14 - Wildlife Ecology
Cooperative Forestry Research Unit

Damien Affleck '15 - Biological Engineering
Cold Regions Research and Engineering Laboratory

Kyle Nolan '15 - Electrical Engineering
REU University of Maine

Marcel Marki '15 - Electrical Engineering
REU University of Maine

Nicholas Grant '15 - Computer Engineering
Fairchild Semiconductor

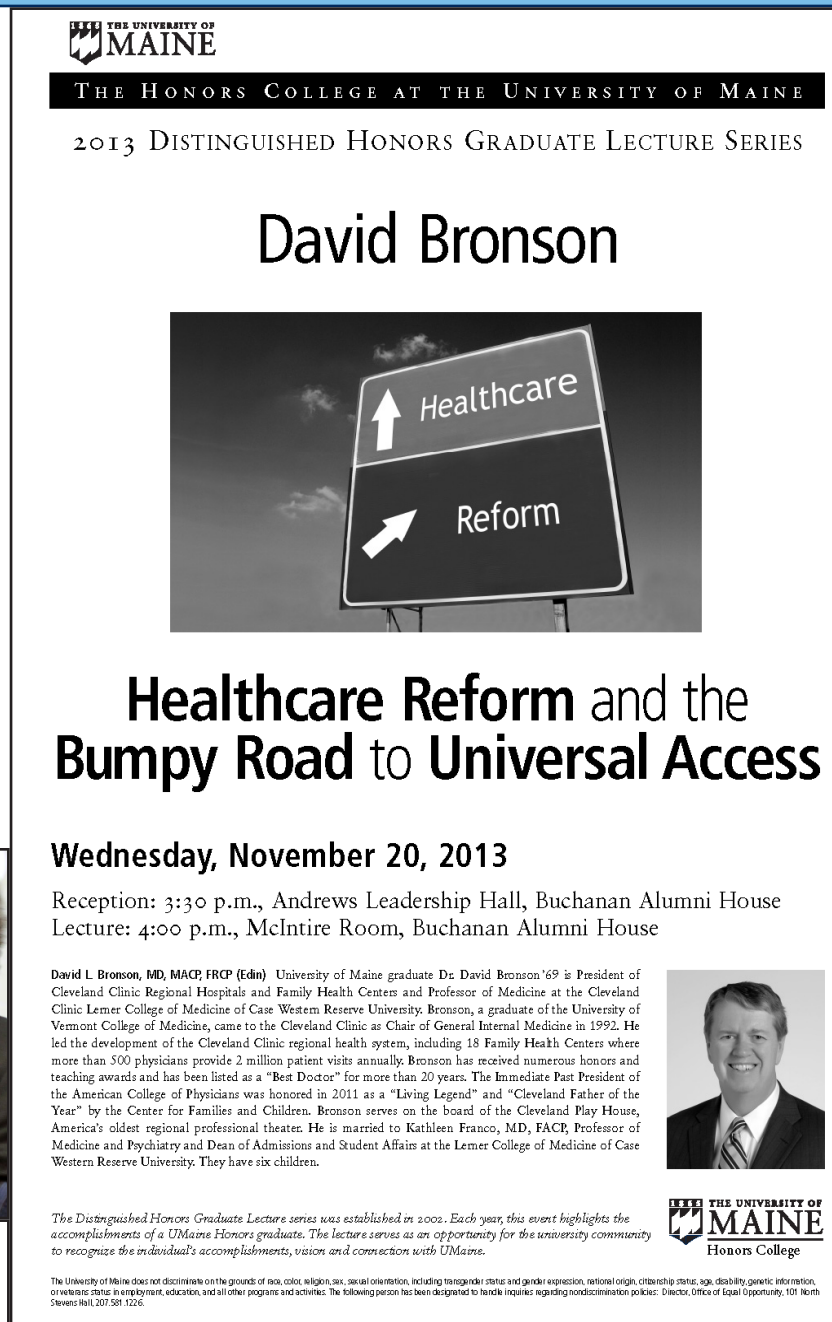
2013 Distinguised Honors Graduate Lecture
David Bronson '69, MD, FACP

"There are three things you can ask for in life. Number one: a chance to learn everything you possibly can; number two: a chance to make a difference; and number three: a chance to have fun while doing it with the people you work with."

- David Bronson's '69, MD, FACP advice to students and attendees of the 2013 Distinguised Honors Graduate Lecture

Dr. Bronson's lecture, *Healthcare Reform and the Bumpy Road to Universal Access* provided an historical overview of healthcare and healthcare reform in the United States. He then discussed the Affordable Care Act and its broader implications. Overall, Bronson believes that the Affordable Care Act, while not perfect, is a positive step toward reforming the current healthcare system.

François presenting Dr. Bronson with a bound copy of his Honors thesis. (photo credit Christie Edwards)



The theme for the **2013 John M. Rezendes Ethics Essay Contest** was "the ethics of globalization." Globalization refers to increased connectivity across national borders and the growing interdependence of global human and ecological communities. Globalization represents an accelerating trend of interaction among cultures and societies over tens of thousands of years. The word "globalization" means many things to many different people and invites a range of responses, both positive and negative, but most agree that the process of globalization raises many ethical questions.

Pictured (from left) Beau Rezendes, Dennis Rezendes, Gareth Warr, Gewn Beacham, Ciarán Coyle, Arthur Serota

John M. Rezendes Visiting Scholar in Ethics 2013
Arthur Serota '66

THE UNIVERSITY OF MAINE

THE HONORS COLLEGE AT THE UNIVERSITY OF MAINE

THE 2013 JOHN M. REZENDES VISITING SCHOLAR IN ETHICS

ARTHUR SEROTA

AP Image/Karel Prinsloo

To look the other way or not:
Ethical choices we make

TUESDAY, APRIL 2, 2013

Talk: 3:30 p.m., Hauck Auditorium, Memorial Union
Reception to follow

Arthur D. Serota '66, winner of the 2008 Bernard Lown '42 Humanitarian Award, graduated from the University of Maine with a B.S. in animal science. He later received his J.D. from Suffolk University Law School. His interest and commitment to issues of social justice ultimately led him to Africa, where he encountered the harsh reality of child soldiering when an army containing thousands of child soldiers crossed into Zimbabwe. This event encouraged Serota to remain in Africa to work on education, community development, health and agriculture in these war-torn regions. His continued encounters with the ongoing conflicts and use of child soldiers in several African regions led Serota and others to form the United Movement to End Child Soldiering (UMECS), an organization he serves as executive director and chief executive officer.

The John M. Rezendes Ethics Lecture was established to critically engage students, faculty members and the surrounding community with ethical issues of national importance.

The Honors College AT THE UNIVERSITY OF MAINE

This event is sponsored in part by the Honors College and the Cultural Affairs/Distinguished Lecture Series Fund.

The University of Maine is an equal opportunity/affirmative action institution.

To coincide with the 2012 Honors Read *What is the What* by Dave Eggers and our theme of "the ethics of globalization," we invited Arthur Serota '66 to be the 2013 Visiting Scholar in Ethics. In his talk, "To look the other way or not: Ethical choices we make," Serota spoke about ethical framings and how we should use those framings to make ethical decisions on a local, regional, national and global basis. The talk largely focused on his work with the United Movement to End Child Soldiering and his work to counsel and educate children and youth who have been affected by the wars in Uganda and other neighboring regions in Africa.

The United Movement to End Child Soldiering, as the name suggests, was originally focused on child soldiering. However, that focus has expanded to two central areas: building cultures of peace to prevent new wars and addressing the immediate and long term educational and psychosocial needs of children and youth affected by war and disadvantaged youth affected by poverty.

This year all three of our finalists were second-year Honors students!

The first place prize went to:

Gwen Beacham '15 (Molecular and Cellular Biology) for her essay *The Ethics of the United States' Clinical Trials in India.*

Our two runners-up were:

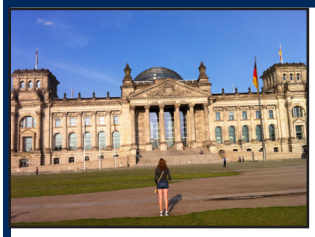
Gareth Warr '15 (Political Science) for his essay *The Ethics of Globalization: A Marxist Critique*, and

Ciarán Coyle '15 (History, Philosophy) for his essay *Globalization of Reflection: Latin American Experience of Exploitation Justified by Abstraction.*

Greetings from Boston!

Once again, thanks to the generosity of Betsy & Bill Leitch, 8 students, 8 faculty members, and 4 staff members attended the 2012 NCHC Conference in Boston!

Presentations included . . .



Honors Students

Caitlyn Ahlberg ' 14 - Biochemistry
Stockholm, Sweden

Monique Boutin ' 14 - Art History, Studio Art
Quimper, France

Peter Brooks ' 13 - Psychology, Spanish
Buenos Aires, Argentina

Kimberly Dao ' 14 - Biology
Semester at Sea

Jennifer Ferguson '14 - Political Science
Paris, France

Amy Fish ' 15 - Animal & Veterinary Science
Glasgow, Scotland

Kyle Franklin '14 - Financial Economics
Amman, Jordan

Kelsey Hickey ' 13 - Psychology
Viterbo, Italy

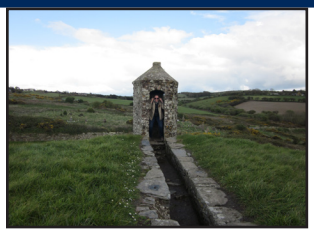
Avoiding the "Thermidorian Reaction": Civic Engagement, Intellectual Imperialism, and Honors - **Nicole Begley, Christine Gilbert, Rob Glover, Mark Haggerty, Melissa Ladenheim**

A Quiet Revolution: Tutorials Challenge the Drive toward Instrumental Education - **Kathleen Ellis, Edie Elwood, David Gross, Mark Haggerty**

You Say You Want a Revolution? The Intellectual Boundaries of Honors Education -**Rob Glover, Chris Paradis, Elizabth Tull, Samantha Paradis**

Women Hold Up Half the Sky: (En)gendering Diversity in the Traditional Canon - **Shannon Brenner, Edie Elwood, Melissa Ladenheim, Caroline Robe**

Honors Students Doing Honors Teaching - **Paige Eggleston, Molly Flanagan, Mimi Killinger**



Study Away

Emily Kelsey ' 14 - Civil Engineering
Semester at Sea

Harold Lyons ' 14 - Political Science
Amman, Jordan

Allison Priole ' 14 - New Media
Ottawa, Canada

Elizabeth Reynolds ' 14 - Civil Engineering
Italy, France, UK

Tess Tacka ' 15 - International Affairs
Pau, France

Hannah Vail ' 14 - Political Science
Prague, Czech Republic

Seth Wegner ' 15 - Spanish
Córdoba, Argentina

Emma Wilson ' 14 - Marketing, Management
Torino, Italy

The Rezendes' are Sending Our Students Away!

Thanks to the generous support of Dennis '57 and Jacqueline Beau Rezendes (pictured below with Morgan Kinney '14), our students were given the opportunity to travel nationally to Boulder, CO, and internationally to Tanzania, Africa.

Morgan Kinney '14 Attended a Conference on "Everything Conceivable"

Morgan Kinney '14, a psychology major, was selected to attend the 65th annual Conference on World Affairs (CWA) at the University of Colorado in Boulder, CO, in April 2013. The CWA is popularly referred to as a conference on "everything conceivable," and Morgan's experience verifies that claim. She attended sessions with titles ranging from "When Binders Full of Women Vote" to "Gay Today" to "U.S. Corruption: Too Big to Jail." She heard many panelists speak, including the acting director of the Peace Corps, Carrie Hessler-Radelet; longtime political figure, Kathleen Kennedy Townsend; the CEO of Playboy Enterprises, Inc., Scott Flanders; and former CIA operations officer, Valerie Plame Wilson. In Morgan's words:

> *It was fascinating to hear that the CWA is run largely by student workers and that the speakers are all there of their own accord. They are not paid or provided with travel and housing, but attend simply for the joy of engaging in a community of active and diverse citizens. After spending a week immersed in the atmosphere of the CWA, their choice is easy to understand. The rich diversity of the attendees and speakers, as well as the overwhelming willingness of all involved to fully engage in the conference, made the CWA one of the most memorable experiences of my undergraduate career.*

Rose McGlauflin '14 Volunteered in a Tanzanian village

In August 2013, **Rose McGlauflin** '14 (Biology) was awarded the Rezendes Global Service Scholarship. Through the Global Volunteers organization (Minneapolis, MN), Rose was able to travel to the village of Pommern, Tanzania where she, along with the rest of her team of volunteers, taught health education in the village and in surrounding schools. Here is a little piece of Rose's experience:

> *Our first assignment was to meet with the village women before we began our lessons in the schools. We expected to get five or six women to listen to our presentation. Apparently, listening to three mzungu (white people, in Swahili) speak about anything is exciting. We taught to a packed room and spent the morning laughing and taking volunteers to demonstrate proper hand washing and teeth brushing* (right). *We introduced our audience to hand sanitizer, a completely foreign substance. At the end of the lesson each pupil received a toothbrush, toothpaste and soap. Though we worked through a language barrier, I quickly learned humor has no cultural divides.*

> *After our lessons each day, we would discuss as a team. Very often, we were concerned we wouldn't be able to do enough good for the community. We had given them toothbrushes and soap, but without clean, safe water we wondered what good it would do. The community assured us the knowledge we brought students was the most powerful tool we could give. Certainly, if disease, poverty and lack of education are such prevalent problems for society, there are no quick fixes or easy answers; however, my experience taught me that positive changes often stem from seemingly small actions with infinite potential.*

The Dennis '57 and Beau Rezendes Global Volunteers Fund was established in conjuction with Global Volunteers to encourage student volunteerism abroad and to "lay a foundation for world peace through mutual understanding."

Associate Catch Up: Emily Ann Cain '02

It has been ten years since I finished my time as one of two first-ever Honors Associates. Since then, I have earned my master's degree from Harvard University, gotten married, continued to work in the Honors College, served nine years in the Maine legislature, and now I am running for the U.S. Congress in Maine's second congressional district.

Sarah Paul '02 and I were the first to be hired into these new positions that were created as part of deliberately growing Honors at UMaine. In fact, one of our first tasks was to plan the Honors College Inauguration, when Honors officially changed from "Program" to "College," during the fall semester of 2002.

I wanted to become an Honors Associate for two reasons. First, and most of all, I wanted to continue to work with Charlie Slavin, the Honors Director at the time, and soon-to-be inaugural Dean of the Honors College. Charlie was my first mentor and friend at UMaine, and as a student I had worked side-by-side with him on renovating Colvin Hall for Honors, on shaping Honors housing at UMaine, on planning for the transition from Program to College, and on creating a true community in Honors. I wanted to work for Charlie, and continue to learn from him.

Our first two Associates at the Charlie's Terrace Homecoming event

Second, I wanted to see the vision that was in place for an Honors College come to life, and be a part of making that happen in the best possible way for students, faculty, and staff at UMaine.

Now, ten years since leaving the Associate position, I am still friends with Sarah Paul. I have enjoyed working as the Honors College Coordinator of Advancement, including editing six award-winning editions of Minerva. I continue to use and build-upon the skills I learned in that position about fostering community, building pride in Maine, and creating opportunity for students and their families.

I just wish Charlie was still here to see it all happening.

Current Student Profile: Jill Pelto '15

Viewing the world through two overlapping lenses

Jill Pelto '15 recently completed her fifth summer working with the North Cascade Glacier Climate Project. For sixteen days in August she traveled to Washington State where she collected data from sixty-six crevasses on over seven glaciers found on Mount Baker, Mount Shuksan, and Mount Daniels. Jill specifically observed the location, surface slope, width, depth, and length of each crevasse. She of course took notes, but also photographed and sketched several of them. One of her paintings can be seen here, as the background to this article.

Jill has an interest in both science and art. As a double major in studio art and earth science she has found art and science to always have a connection in her life. She spends much of her time outdoors and is continuously observing the natural environment around her. Jill finds that observation is the connection between art and science. She views the world through two overlapping lenses, observing glacial landscapes as an earth scientist and as an artist.

Jill will be using her observations from her time with the NCGCP for her thesis. She will use the data she has collected, the photos she has taken, and her sketches and paintings to create a project that encompasses both of her passions.

A note from Nolan Southard '11

Dear Friends at UMaine Honors,

I am privileged to write for Minerva and give an update on the past few years since I defended my thesis and walked onto the stage at the Alfond Arena to secure what I jokingly call "the most expensive piece of paper I have ever purchased." It is hard to believe over two years has passed since that time, and there is so much that has happened.

Upon graduating in May of 2011 with a Mechanical Engineering degree, I moved to the Berkshires of Western Massachusetts to join the ranks of process engineers at Onyx Specialty Papers, Inc. located in Lee, Massachusetts. Onyx is a small specialty paper

Onyx Specialty Papers, Inc.

mill that is known for its colorful décor laminate papers for countertops and flooring panels and its role in making "friction" papers used in the automotive industry. After a year as a process engineer, I was promoted to supervisor of the Process Control Department, which is responsible for process automation. This means making products of better quality, more efficiently, and repeatable while also using the equipment to automate manual tasks that operators perform on a daily basis in order to free up their time to work on other opportunities for improvement. All-in-all, my career is on track and moving quickly, which is the pace I find myself operating most of the time these days.

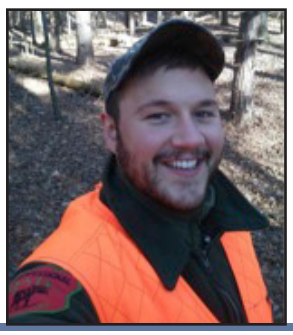
Outside of work, I have been busy getting to know the area, hiking locally and in the Adirondacks. I have made it a goal to be a "46-er" (someone who has hiked all 46 peaks over 4,000 feet high in the Adirondacks), but I have a feeling that accomplishment is down the road a ways. In the summer of 2011, I met my best friend, Christine, and we were married in January of 2013 in Saratoga Springs, NY. We stay busy being outside, working on our new home, and involved in our church.

It is particularly interesting to share with you the last two years for myself because this would have been written very differently – if written at all – were it not for the Honors College and Dean Slavin's (I can hear him correcting me, "Charlie", as I write this formality) impact on me. When I started school in

Nolan and Christine

the fall of 2006, I was a top student from my high school, but was very underprepared for college. Honors 111 quickly became my favorite course, and I was having confidence issues that engineering was not the right fit for me. This battle continued into my sophomore year, and not having many people at the University to talk with about this, I reached out to Charlie. I remember Charlie instantly sent me an email back saying he wanted to give my concerns some thought and he would be back in touch with me in the next few days. As promised, I received an email that was very lengthy that not only addressed my concerns and gave me a much needed confidence boost, but Charlie was very personal, sharing some of his own stories about college and his Dad. My biggest regret was not printing that email, because it was a "game-changer" for me. Not only did my engineering path develop, I had the assurance I was in the right place. My relationship with the Honors College was also enriched as I made the decision to continue down the path to graduate with Honors and enrolled in Charlie's Honors Read Tutorial to choose the incoming students' first book of their Honors College experience. Shortly after, I had the opportunity to co-facilitate the pilot course Honors 170: *Currents and Contexts*.

So, if you are a prospective student reading Minerva, please seriously consider the Honors College, as it is a really unique experience that will surely guide you to find your full potential. If you are currently a student…GREAT, keep up the good work and stick it out, you will not regret it! If you are an alum, please take a few minutes to remember the impact the Honors College had on you - as I am sure it did - it will bring a smile to your face.



Nolan

Special Recognition

The Honors College would like to recognize the following Honors College students for their outstanding achievements during the 2012-2013 academic year. Congratulations!

Outstanding International Student,
Liberal Arts and Sciences:
Maja Bedak '13 (International Affairs)

The Wallace C. and Janet S. Dunham Prize,
Natural Sciences, Forestry and Agriculture:
India Irene Stewart '13 (Biology)

The Honors College annually recognizes Honors students with these special awards:

The John Ferdinand Steinmetz Memorial Award was established in 1962 through a gift from the family of the late John Ferdinand Steinmetz '43. The income of this fund is to be used annually as an award for first-year Honors students demonstrating outstanding characteristics and appropriate need.

Helen Call '16 (Biology) **Abigail Feuka** '16 (Wildlife Ecology)
Eliot Gagne '16 (Biochemistry) **Bryer Sousa** '16 (Chemistry)

The Robert B. Thomson Memorial Awards were established in 1984 by family and friends. The income from the fund is awarded to outstanding Honors College juniors majoring in Political Science and in Art.

Hannah Vail '14 (Political Science) **Monique Boutin** '14 (Art History, Studio Art)

The Professor Melvin Gershman Scholarship Fund was established at the University of Maine in 1998 with gifts from family, friends, and associates. The income from the fund shall be used to provide scholarship assistance to meritorious science students enrolled at the University of Maine. Preference shall be given to students in the Honors College whose curriculum includes a strong emphasis in the humanities.

Lily McLaughlin '14 (Animal and Veterinary Science)

The Honors College Service Award is presented to one or more graduates of the Honors College for outstanding commitment and contributions to the University of Maine Honors community. The award is supported by gifts from our graduates.

Paige Eggleston '13 (English)

HONORS INDEX*

2013 Honors Graduates at a Glance

Average GPA of 2013 Graduates: 3.736

Percentage of graduates in Phi Beta Kappa: 30

Number of graduates who presented at an academic conference: 16

Number of graduates who published while an undergraduate: 4

Percentage of graduates who studied abroad: 20

Number of graduates who completed a tutorial alternative: 14

Number of graduates who attended at least one Honors trip: 12

Number of graduates who were officers of a student organization: 22

Percentage of graduates who worked while in school: 76

Number of graduates who lived in Honors housing at least one semester: 30

Number of graduates planning to attend graduate school: 23

Number of graduates who submitted a Rezendes Ethics Essay: 4

Number of graduates who had the dean of the Honors College on their thesis committee: 5

Number of graduates with a double major: 8

Number of graduates with a double degree: 3

Number of graduates with at least one minor: 28

Percentage of graduates from Maine: 78

Percentage of graduates from out of state: 22

Number of graduates from the College of Natural Sciences, Forestry, & Agriculture: 23

Number of graduates from the College of Liberal Arts & Sciences: 23

Number of graduates from the College of Business, Public Policy, & Health: 1

Number of graduates from the College of Engineering: 5

Number of graduates from the College of Education: 1

** Inspired by Harper's Index*

Michael Arell
Music Education

Bangor, ME
Bangor High School

Why Are Comedy Films So Critically Underrated?

Advisor: Michael Grillo

Thesis description: Since the first Classical plays, critics and scholars have viewed comedy as inferior to drama. In the world of film, most comedies receive very little critical notice, if any. My thesis identifies the major conventions of comedy, traces the development of comedy over time, examines ten film case studies, and provides answers to why critics and scholars overlook comedy. I then present solutions to the insufficient state of the critical analyses of comedy and push for the development of a clearer critical language and relative canon of comedy films in order to improve the scholarly and critical exploration of comedy.

Future plans: I plan to student teach for Fall 2012, and then will decide whether to pursue a graduate degree or gain some work experience first. Regardless of what career path I choose, I would like to spend my life making people happy.

Marc A. Beauchemin
Chemical Engineering

Saco, ME
Thornton Academy

Design Focused Computer Module For Chemical Engineering Outreach

Advisor: M.Clayton Wheeler

Thesis description: My thesis explores the use of a computer module to interest young people in chemical engineering. The program allows students to create their own chemical process using the types of equipment commonly used by chemical engineers. The goal of the project is to give middle and high school students a taste of the chemical engineering design and problem-solving experience.

Future plans: I will begin working for Metso Automation in Pennsylvania on projects in North America and Europe.

Maja Bedak
International Affairs
Economics, Anthropology

Zenica, Bosnia and Herzegovina
Portland High School

The U.S.-Russian Bilateral Counterterrorism Efforts

Advisor: James Warhola

Thesis description: The U.S.-Soviet proxy war fought in Afghanistan essentially gave rise to international terrorism that threatens the national security of Russia and the United States. Ironically, the common concern led to thus far unprecedented cooperation between the two states. This thesis explores the areas of such collaboration, focusing on multidimensional efforts in Afghanistan including drug eradication strategies, infrastructure development and training of Afghan police and military forces. While the U.S.-Russian cooperation has significantly increased following the September 11 attacks, lingering mistrusts of the Cold War impede greater cooperation. Also, while the efforts in Afghanistan have been significant in areas such as education and training of Afghan military personnel, the larger issues of the Taliban and narcotics have not been solved.

Future plans: I plan to take a year off before graduate school. I will be working for the Seeds of Peace over the summer.

Andrew A. Bergeron
Psychology
Business Administration

Augusta, ME
Hall-Dale High School

A Curvilinear Approach to Examining Co-Rumination and Depressive Symptoms

Advisor: Douglas Nangle

Thesis description: Co-Rumination refers to a pattern of behavior involving repetitive discussion of personal problems with a focus on the negative thoughts and feelings those problems create. In an "adjustment trade-off," co-ruminating individuals tend to be at higher risk for developing depressive symptoms, but also tend towards higher levels of relationship satisfaction and intimacy with the individuals with whom they co-ruminate. It is generally assumed that a positive, linear relationship exists between co-rumination and depressive symptoms. This study examined whether the relationship could be better expressed using a quadratic regression through better accounting for the benefits of co-rumination.

Future plans: I intend to apply to graduate programs in clinical psychology and pursue a career in the mental health field.

Ariel Lee Berthel
Zoology

Salem, NH
Salem High School

The Phylogeny and Biogeography of the Monito del Monte (Dromiciops gliroides) and its Relatives

Advisor: Irving Kornfield

Thesis description: Little is known of marsupial evolutionary history, and the relationship among the living marsupials today has not been resolved; however, we do know that they have a complex history. The marsupial monito del monte lives in a small region of Chile and Argentina, which is curious because it is believed, with a large amount of evidence, to be more related to the marsupials of Australia than to those on its own continent of South America. This animal appears to be the link between South American and Australian marsupials. My thesis discusses the origins of the monito del monte, the geography needed for its ancestors to have traveled to and from continents, the style of its migration, and marsupial evolutionary history.

Future plans: I plan to move to California for a change of scenery and the chance to encounter novel opportunities not presently available in the Northeast. I'm not exactly sure what I want to do with my life, but I know it's going to include animals in one way or another.

Justin P. Bolinger
Chemical Engineering

Gorham, ME
Gorham High School

A Comparative Genomics Approach To Using High-Throughput Gene Expression Data to Study Limb Regeneration in* Ambystoma mexicanum *and* Danio rerio*: Developing a More Completely Annotated Database

Advisor: Keith Hutchinson

Thesis description: The axolotl and zebrafish represent organisms extensively studied because of their remarkable capability of fully regenerating completely functional tissues after a traumatic event. The intent of this study is to bridge the gap between research regarding these two organisms and connect genes between axolotl and the zebrafish by using a "Rosetta stone" framework to develop a database comparing gene expression data obtained from both microarray-based experiments and high-throughput DNA sequencing of axolotl and zebrafish mRNA and miRNA.

Future plans: I plan to pursue a full-time position in the fields of chemical, biomedical, or environmental engineering, biostatistics, or polymer science. I plan to pursue life to the fullest and make my life the best that it can be for both myself and those around me, for those who I can see and for those who I can't.

Jenna L. Bowley
International Affairs, Spanish
French

Bowdoin, ME
Mt. Ararat High School

Robin Hood or Villain: The Social Constructions of Pablo Éscobar

Advisor: Stefano Tijerina

Thesis description: Pablo Éscobar (1949-1993) was a Colombian drug lord and leader of the Medellín Cartel. He became famous internationally for waging war against the Colombian government in his campaign to outlaw extradition and ordering the murders of countless police officers, journalists, and high-ranking officials and politicians. He is also well known for investing in charitable public works, including the construction of schools, sports fields and housing developments for the urban poor. While U.S. and Colombian officials have portrayed Escobar as a villain and terrorist, many people among the Colombian popular class admire him as a generous benefactor, like a Colombian Robin Hood. This thesis examines the development of both of these social constructions, the villain and the Robin Hood, from their origins in Colombia's political and socioeconomic history.

Future plans: I will be traveling to Rio Grande do Sul, Brazil this December.

Peter Brooks
Psychology, Spanish
Pre-Medical Studies

Bremen, ME
Lincoln Academy

Exploring the Alcohol Deprivation Effect in Withdrawal-Seizure Prone and Withdrawal-Seizure Resistant Mice

Advisor: Alan Rosenwasser

Thesis description: This study explored the alcohol deprivation effect (ADE) in mice selectively bred for high and low severity of alcohol-withdrawal seizures: withdrawal-seizure prone (WSP) and withdrawal-seizure resistant (WSR). We provided mice with continuous access to food and water and observed the changes in alcohol intake as a result of intermittent alcohol availability. Multiple genotypes of rats and mice have repeatedly shown a tendency to increase voluntary alcohol drinking following deprivation, suggesting that binge-like relapse drinking in humans is dependent on multiple interacting genetic factors. In the present study, WSP and WSR mice showed a similar ADE, supporting the generality of this effect and suggesting that the genetic mechanisms underlying escalated intermittent drinking are separate from the genetic mechanisms underlying withdrawal severity.

Future plans: Following graduation I plan to attend medical school and embark on the career path of an emergency physician.

Colleen G. Buckless

Biology

Neuroscience, Psychology

York, ME
York High School

A Pilot Study of Gender-Related Differences In Color Acuity in Human Vision

Advisor: Leonard Kass

Thesis description: I conducted research on human subjects to learn more about color acuity within the visual system. In order to investigate color acuity, a new computer program was designed to administer tests in which people indicated the orientation of vertical or horizontal lines. These lines varied in the number of pixels that formed the line widths and alternated between two colors for each line pair pattern. I found that there appears to be differences between specific color combinations and acuity and possible differences in color acuity between sexes. The results appear to be very promising and indicate that the experimental design used for this study can be used for more extensive testing to understand human color acuity.

Future plans: I plan on attending graduate school specializing in neuroscience in fall 2013. I am interested in human brain research and would like to someday focus on developmental disabilities within the human brain.

Anna G. Burgess

English, Biology

Dedham, ME
Brewer High School

Characterization of NRK2B Overexpression in a Transgenic Zebrafish Congenital Muscular Dystrophy Model

Advisor: Clarissa Henry

Thesis description: At the sites which skeletal muscle fibers anchor to surrounding extracellular matrix (ECM) material of tendon, MTJs (myotendinous junctions) need to maintain homeostasis under stress for muscle to function normally. Human congenital muscular dystrophies (CMDs) are a heterogeneous group of diseases that disrupt muscle homeostasis, are severely debilitating, and currently have no cure. In many CMDs, genetic mutations effect cell adhesion complexes located at the MTJ. The adherence of muscle fibers' cytoskeleton to the extracellular matrix (ECM) is weakened when these complexes are compromised. Many genes resulting in muscular dystrophies are currently identified, yet the fundamental cell processes underlying muscle formation and attachment are chiefly unknown. This gap in knowledge results in a lack of tissue specific treatments. This project aims to research whether the overexpression of nicotinamide ribose kinase 2b (Nrk2b) enzyme, required in a salvage pathway to generate NAD+ and aid in the regulation of muscle cell adhesion, can be exploited to rescue a form of congenital muscular dystrophy in the zebrafish model organism.

Kathleen A. Carroll

Wildlife Ecology, Marine Science

Mesa, AZ
Mesa Mountain View High School

From Not so Simple a Beginning: The Voyage of the Beagle to the Voyage of the Endeavour, Retracing the Steps of Charles Darwin in the Galápagos Islands

Advisor: David Townsend

Thesis description: My thesis is a natural history exploration of the behavior and distinct features of common vertebrates of the Galápagos Islands. Covering more than twenty-six species, this journey of observation begins with an in-depth look at Charles Darwin's field notes, and moves through history to examine how the knowledge about these species has changed. It is finalized with my personal experiences after a ten-day journey exploring the islands with the crew of the National Geographic vessel, the *Endeavour.* My understanding of the species was solidified through my notes, sketches, films and photographs.

Future plans: I plan on attending graduate school and long term I would like to complete a PhD and work at a university teaching and conducting field research.

Erin Victoria Carter

Molecular and Cellular Biology, Biochemistry, Microbiology

South Berwick, ME
Marshwood High School

Evolutionary and Molecular Analysis of Conserved Vertebrate Immunity to Fungi

Advisor: Robert Wheeler

Thesis description: Mammals possess various C-type lectin receptors that recognize pathogenic fungi such as Candida alibcans; however, most of these receptors haven't been identified in fish. I used bioinformatics to identify several potential zebrafish fungal recognition receptors. Soluble versions of three potential receptors were then engineered via molecular cloning and cell culture and are currently being analyzed for their microbial recognition abilities. This project aims to provide insight into developing novel anti-fungal therapies for commercially valuable fish and enhances our understanding of how vertebrate immune systems have evolved.

Future plans: I plan to earn my PhD. through the UMaine Graduate School of Biomedical Sciences and Engineering.

Siobhan A. Cusack

Molecular and Cellular Biology, Microbiology

South Berwick, ME
Marshwood High School

Reverse genetic analysis of a cysteine protease-encoding gene (RD19a) of Arabidopsis thaliana ***in relation to the mechanism of resistance to the piercing/sucking insect*** **Myzus persicae**

Advisor: Benildo de los Reyes

Thesis description: A recent study in Solanum bulbocastanum aiming to identify genes potentially involved in aphid and pathogen resistance implicated a gene similar to the Arabidopsis thaliana cysteine protease gene RD19a in resistance to aphid feeding. Relatively high levels of the protein product of RD19a are produced in response to abiotic stresses such as drought and high salinity, and mutants for the gene show increased susceptibility to bacterial infection. In my project, Arabidopsis RD19a mutants and wild-type plants were subjected to aphid feeding to observe and compare their responses. Gene expression analysis was conducted to determine if RD19a is inducible by insect feeding. Mutants showed increased susceptibility to aphids, and gene expression analysis showed that RD19a is aphid-inducible, implicating it in biotic as well as abiotic stress resistance. RD19a appears to be highly conserved among plants and animals, although the biological functions may have diverged.

Future plans: I'm starting as a PhD student at Michigan State University in the fall.

Laura Jean Duran

Chemical Engineering

Falmouth, ME
Catherine McAuley High School

Fast Pyrolysis of Muconic Acid and Formic Acid Salts

Advisor: Adriaan van Heiningen

Thesis description: Lignin is a major component of biomass, a renewable energy source. A by-product stream of chemical pulping, black liquor, is rich in lignin. At UMaine, black liquor is being studied as a potential biofuel using thermochemical conversion. The overall goal of biofuel research is to obtain a higher fuel/liquid yield, and to obtain a product low in oxygen content. To understand the potential products of black liquor conversion, muconic acid/formic acid salts were studied as model compounds. Pure muconic acid salts and mixtures of muconic acid/formic acid salts underwent fast pyrolysis--heating in the absence of oxygen. Formic acid salts were included to lower the oxygen content of volatile products, which would theoretically condense to liquid fuels. Solid products were analyzed as char. Volatile products contained many deoxygenated, carbon-containing compounds. Overall, pyrolyzing muconic acid and formic acid salt mixtures produced highly deoxygenated volatiles and low amounts of char.

Future plans: I will enter the pulp and paper industry as a process engineer at Verso Paper Corp. in Bucksport, ME. I plan to pursue a career in the industry as an engineer or manager.

Matthew P. Dzaugis

Marine Science

Holden, MA
Wachusett Regional High School

Diet and Prey Availability of Sturgeons in the Penobscot River, Maine

Advisor: Gayle Zydlewski

Thesis description: Although vital to the protection of species listed under the U.S. Endangered Species Act, critical habitat of shortnose and Atlantic sturgeon in the Penobscot River, Maine have not yet been described. Part of critical habitat is diet and prey availability, which is the focus of my study. To characterize prey availability I collected benthic (bottom) samples seasonally and spatially within the Penobscot River. I also collected stomach contents from Atlantic sturgeon and shortnose sturgeon using gastric lavage (stomach pump) and identified any organisms expelled. I looked for spatial and temporal differences in benthic communities and sturgeon diet and found that sturgeon have specific reaches within the river where they primarily forage. Spionid worms were not only the most abundant organisms in substrate samples throughout the year but also were the primary prey item in sturgeon diets.

Future plans: I am going to hike the 750 miles of the New England section of the Appalachian Trail. Next fall I begin my Masters degree at the University of Texas at Austin and will enjoy a nice break from Maine winters!

Paige E. Eggleston

English

Psychology

Topsham, ME
Catherine McAuley High School

Multiple Voices in the Modern and Contemporary Novel: How First Person Point of View Can Tell a Subjectively Objective Story

Advisor: Greg Howard

Thesis description: First-person point of view is typically characterized as subjective and limiting, whereas third-person is more objective and reliable. Multiple first-person perspectives, however, give the reader an authentic account of events and work to present the reader with an objective story. *Mrs. Dalloway*, a Modern text by Virginia Woolf, shifts from an internal to external state, allowing the reader to gain authentic knowledge that would not otherwise be obtained. *The River Gods*, a contemporary work by Brian Kitely, holds together subjective first-person vignettes spanning over the course of three hundred years. *Cloud Atlas*, another contemporary work by David Mitchell, focuses on six short stories, almost all of which are first-person, spanning over five hundred years. These books all scratch at the internal subjective viewpoints of characters. In this way, they construct a subjectively objective reality. Thus, multiple first-person perspectives are anything but limiting.

Future plans: Following graduation, I will begin working for Senator Collins and hope to later attend law school.

Kelsey A. Fahey

Psychology
Studio Art

Glenburn, ME
John Bapst Memorial High School

The Acceptance and Understanding of Preschoolers with Special Needs by Typically Developing Peers

Advisor: Cynthia Erdley

Thesis description: This study examined the relationship between enrollment in an inclusive preschool program and acceptance and understanding of children with special needs by typically developing peers, and explored the potential benefits of educating typically developing children and children with special needs together. Data were collected through questionnaires completed by parents of children attending a private inclusive preschool and a university-based preschool program. Children at these schools were interviewed to explore typically developing children's understanding of specific disabilities and their general acceptance of children with special needs. The hypothesis was that typically developing children at the private inclusive preschool would be more accepting and understanding of physical and developmental special needs compared to the children at the university-based program.

Future plans: I plan to spend a year working with children before returning to school to pursue a master's degree in Educational Psychology.

Michael FitzGerald

Physics, Mathematics

Topsham, ME
Mt. Ararat High School

A Lateral Excited Thin Film Bulk Acoustic Wave Sensor

Advisor: John Vetelino

Thesis description: Medical needs have encouraged the development of highly sensitive sensors operable in liquids. Acoustic sensors show promise due to their high sensitivity, real-time detection, and low cost. These sensors consist of metal electrodes and a piezoelectric crystal. Piezoelectric crystals respond to an applied alternating electric field with time-varying deformations that manifest as acoustic waves. The resonant frequency of these waves can change due to mass and/or viscous loading, which can be accomplished through biochemical reactions on the sensor surface. Changes in the resonant frequency can be monitored through an electrical output. This project concerned the design, simulation, fabrication, and testing of a novel piezoelectric aluminum nitride (AlN) sensor. Using physical deposition systems, high quality AlN sensors were fabricated. Using a relatively novel way of applying the electric fields, a moderate in-liquid response was achieved. Overall, a biosensor building block was established.

Future plans: Obtaining a job in the semiconductor industry.

Molly Patricia Flanagan

Marine Science
Premedical Studies

Farmington, ME
Mount Blue High School

***Investigation of Early Development and Importance of Sediment Choice in the Hatchery Production of Razor Clams,* Ensis Directus**

Advisor: Paul Rawson

Thesis description: *Ensis directus*, the razor clam, is a bivalve species found in shallow, subtidal, sedimentary habitats, such as estuaries. A recent increase in razor clam market value has resulted in heightened interest in producing them in aquaculture settings. For my thesis, spawned razor clam embryos were observed via video and still imagery to document the timing of early development. I obtained additional footage and images of clams during the larval phase through metamorphosis to determine morphological features associated with the onset of settlement. I conducted experiments investigating the sediment preference of larvae and tested methods for improving the settlement rate and early post-settlement survival. Lastly, I determined the burrowing rates of juvenile clams to help identify appropriate sediments for nursery phase culture. This research will aid in the development of razor clam aquaculture techniques that can be used by Maine's shellfish culture industry.

Future plans: I plan on working and applying to Medical Schools in the upcoming year. I will be moving to Montana and will hopefully do a bit more traveling before the start of Medical School.

Samuel A. Foster

New Media
Business Administration

Saco, ME
Thornton Academy

User Experience Design for Emerging Technologies

Advisor: Mike Scott

Thesis description: User experience design is a diverse field of study that is constantly changing as unique technologies and modes of interaction are developed. Metaphors drive many of these developments, serving to acclimate users to new technologies by comparing them to existing objects and ideas. As newer technologies become increasingly distant from real-world objects, developers are quick to jump to existing technology for metaphors. This results in a lack of experience-unique metaphors that would create a more immersive experience. This thesis focuses on identifying these real-world metaphors through the use of emerging technologies in an interactive art installation.

Future plans: Immediately after graduation I will be departing for a 12-day backpacking trip to Scotland. After returning and working over the summer, I plan to begin the MBA program here at the University of Maine. With a bachelor's in New Media and a master's in Business, I hope to be a valuable asset to a technology design company in the near future.

Brendan Reid Gates

Electrical Engineering Technology

Engineering Entrepreneurial

Franklin, VT
Missisquoi Valley Union

A Power Line Inspection Device

Advisors: Mohsen Shahinpoor, Scott Dunning

Thesis description: My project was an attempt to create a simple economical device to ride on power lines and inspect the conductors and power line components. This device was designed to meet three measurable specifications: distance measurements within 5% accuracy, temperature measurements within 2° C, and battery lifetime greater than 30 minutes. To do this, a thermistor was used for temperature sensing, an encoder for distance measurement, and lithium-ion rechargeable batteries along with step-down converter circuitry to power the device. A functional prototype was built that could be easily placed on a conductor and controlled from a wired control box. The control box consisted of an LCD screen displaying distance and temperature readings, a potentiometer knob to control speed, and a forward reverse switch. A camera connection was also included that displayed video feed of the conductor.

Future plans: I will be working at TRC Solutions as an electrical engineer in their Automation & Communications group. This August I will marry my best friend, Serena Grier. I plan to get my masters degree in electrical engineering and obtain my professional engineering license.

Sean Taylor Hardy

Mathematics

Norway, ME
Oxford Hills Comprehensive High School

Bayesian Analysis of Data on Nest Success for Marsh Birds

Advisor: William Halteman

Thesis description: I took a research paper done as a Masters' thesis by a graduate student from the University of Maine and reanalyzed the data using a more complicated form of statistics known as Bayesian methods. Bayesian methods allow the use of prior knowledge and belief about the data in its analysis, which differs from more conventional methods of statistics.

Future plans: I will be attending graduate school at Boston University to study biostatistics. My long-term goal is to be a biostatistician helping with medical research. At some point in my life I would also like to be a high school football coach on the side, if at all possible.

Kelsey Daniela Hickey

Psychology

Neuroscience, Premedical Studies

Norridgewock, ME
Skowhegan Area High School

Impact of Multiple Stress Response Systems on Rule-Based Category Learning

Advisor: Shawn Ell

Thesis description: We encounter many stressors daily, physical or social, that affect our normal cognitive functioning. Social-evaluative stress, in particular, is known to produce impairments in our ability to integrate and learn new information (working memory). We induced stress in participants with a socio-evaluative task and subsequently measured cognitive performance with a category-learning task. Rule-based category learning is mediated by many systems, one of which is working memory. Using physiological measures (cardiovascular data, stress hormones), we measured how the stress response mediates task performance on category learning. In this experiment we manipulated the timing of the cognitive task relevant to the stressor. There were three conditions in which the cognitive task was performed: immediately following stressor, twenty minutes post-stressor, and fifty minutes post-stressor. In doing this, our aim was to clarify the time course and extent of cognitive deficits relevant to stress.

Future plans: After graduation I plan to get a job in a medical research lab before continuing my education in either graduate school or medical school.

Erica E. Hidu

Microbiology

Hampden, ME
Hampden Academy

Unmasking Candidiasis: A Mechanistic Model for Innate Immune-Fungal Cell Wall Dynamics

Advisor: Robert Wheeler

Thesis description: *Candida albicans* is the fungus responsible for the common yeast infection, but it can also cause serious systemic infections in patients that have weakened immune systems. I studied the interactions between our first line of defense, the innate immune system, and the cell wall of this fungus. Using fluorescent probes, I was able to image the fungal cell wall and develop a potential mechanism for changes in the cell wall seen over the course of one of these systemic infections.

Future plans: Starting this fall I will be going to Tufts University School of Medicine in Boston, MA, in the Maine Track Program. I have not decided what specialty I would like to pursue, but I am keeping my mind open to all possibilities, including continuing doing biomedical research. I would like to eventually return to Maine to practice medicine.

Madelaine May Hill

Biology

Business Administration

Brampton, ON, Canada
Mayfield Secondary School

The Effect that Resistance Training has on the Agility of Division I Female Soccer and Field Hockey Players

Advisor: Lynn Atkins

Thesis description: This study examined the effect that resistance training has on the agility of female Division I athletes over a six-week period of their off-season training. A total of eighteen Division I female athletes, eleven soccer players and seven field hockey players, participated in this study. All athletes performed 5-10-5 pro-agility tests, as well as strength and power tests, at the beginning and end of a six-week resistance training program. The results showed that the field hockey team made significant improvements in power and agility, and insignificant improvements in strength. The soccer team made significant gains in power and strength, and significant decreases in agility. It was found that it may be appropriate to adjust the emphasis of off-season resistance training programs, focusing on maintaining adequate strength rather than on making continual strength gains, which may be detrimental to agility gains.

Future plans: I will be attending Northumbria University in Newcastle, England, in the fall to study physical therapy and to continue playing soccer.

Emily Adrienne Hinkle

Food Science and Human Nutrition, Biology

Kittery, ME
R.W. Traip Academy

A study of cooking and varietal effect on potato* in vitro *bile acid binding capacity

Advisor: Mary Camire

Thesis description: Potatoes have received negative press for being unhealthy due to high starch content, but these vegetables contain many healthful components. Many compounds, such as dietary fiber and resistant starch, help reduce serum cholesterol levels by binding to bile acids in the digestive tract and causing the body to draw from serum cholesterol to create new bile acids. Potatoes were prepared three different ways (raw, steamed, steamed then cooled) and different varieties of potatoes were used (King Harry, Elba, Yukon Gold and All-Blue). The potatoes were subjected to *in vitro* digestion to simulate the human body's natural digestion. After digestion, a bile acid binding procedure was applied and the absorbance of each potato sample was read. Cooling potatoes after steaming significantly increased its bile acid binding ability. The All-Blue and Elba potatoes bound more bile acids than Yukon Gold and King Harry potatoes.

Future plans: I will attend Cornell University's Dietetic Internship this coming academic year. I plan to apply to master's programs after completion of the internship. My personal goals are to continue improvisational acting and travel whenever possible.

Gardner B. Hinckley

Political Science

Philosophy

Jefferson, ME
Erskine Academy

On Nietzsche's "Genealogy Of Morals"

Advisor: Michael Palmer

Thesis description: In this thesis I performed an in-depth examination of Friedrich Nietzsche's "Genealogy of Morals." The thesis itself consists of an analysis of the three main sections of the text, which are the First Essay: "'Good and Evil,' 'Good and Bad,'" the Second Essay: "'Guilt,' 'Bad Conscience,' and the Like," and finally the Third Essay: "What is the Meaning of Ascetic Ideals?" The point of this endeavor was to read the text closely several times and offer my own unique interpretation of what Nietzsche was attempting to say about morality, human nature, and the future of mankind. Ultimately, I feel I produced a satisfactory account and interpretation of the text while keeping the thesis itself relatively concise and approachable.

Future plans: I will be attending Graduate School at Boston College in the fall of 2013 where I will continue my studies in the realm of political theory. I hope to continue my education into a doctoral program in the future.

Charlotte Ruth Elizabeth Howson

Political Science, German

Dance

Shaker Heights, OH
Hampden Academy

Child Maltreatment in the State of Maine: A Study of State Policy

Advisor: Mark Brewer

Thesis description: Child maltreatment is a phenomena seen throughout societies in every area of the world. This study focuses on existing Maine state child abuse policy and describes how social workers strive to uphold, incorporate and even interpret this policy to protect the youth of Maine. A total of 5 interviews were conducted with social workers and other employees of the Maine Department of Health and Human Services. Case workers were asked to give their understanding and interpretation of state policy and to explain the process of applying this policy and how it influences their day-to-day work. The challenges they faced centered on inadequate funding, large case loads, and the complicated nature of efficiently implementing policy. Through this study future social workers as well as Maine citizens will gain a better understanding of the child welfare system.

Future plans: Charlotte plans to travel abroad for a year and attend law school to earn her J.D. upon her return to the U.S. Her future ambitions include advocating for childrens' and women's rights and establishing her own law firm.

Sarah L. Kent
History

Eliot, ME
Marshwood High School

Taking the War to the Water: the American Revolution at Sea, 1775-1776

Advisor: Liam Riordan

Thesis description: My thesis examined the Continental Navy in the first two years of the American Revolution from 1775-1776. This included an analysis of three battles, the Battle of Machias, the Battle of Nassau, and the Battle of Valcour. These three battles demonstrated that in the first years of the war the Continental Navy was decentralized and disorganized. To complete my understanding of the Continental Navy I also examined the British Navy, the formation of the Continental Navy, and the connections between the land and sea wars.

Future plans: Next year I will be attending graduate school at Brandeis University, where I will earn my MAT in secondary education social studies. I plan to teach high school history.

Matthew Koehler
Earth and Climate Sciences, Anthropology

Saco, ME
Thornton Academy

Investigating the Controls on Surface Snow ∂18O Values in the Coastal Northeast Pacific: Implications for Paleoclimate Interpretations

Advisor: Karl Kreutz

Thesis description: The aim of this research is to further understand atmospheric water isotope behavior in the coastal Northeast Pacific in order to better interpret isotopic records taken from ice cores in the region. Isotopic records can be used as proxies for paleoclimate, including temperature and prevailing moisture source.

Future plans: I will be starting my PhD at the University of Washington in the departments of Earth and Space Sciences and Astrobiology.

Shelbe K. Lane
Management
Legal Studies

Patten, ME
Katahdin High School

State-Level Government: An Evaluation of Maine's Conflict of Interest Laws and Amendments to Improve Transparency Through Financial Disclosure

Advisors: Mark Brewer, Michael Cianchette

Thesis description: In March of 2012, the State Integrity Investigation published a Corruption Risk Report Card for each state, grading them on government transparency. Based on those grades, the states were ranked 1-50, with 50 being the worst in government transparency; Maine ranked 46th. This report card prompted my thesis, which evaluated government transparency at the state level and attempted to identify any loopholes in current statutes/regulations regarding conflict of interest for legislative and executive officials in Maine that would be cause for concern. I then drafted a bill proposal to make amendments to improve Maine's conflict of interest laws which was submitted to the 126th Maine Legislature as LD 1001: An Act to Improve Laws Governing Financial Disclosure by Legislators and Certain Public Employees and Public Access to Information Disclosed.

Future plans: I will be attending the University of Maine School of Law to pursue my J.D. Upon graduation from law school I hope to specialize in employment law and mediation.

Annie Ledoux
Psychology, Communication

Gorham, ME
Cheverus High School

Communication Behavior: A Predictor of Depressive Symptoms in Adolescent Couples

Advisor: Douglas W. Nangle

Thesis description: My research examined the relationship between communication and depression in adolescent romantic partners. Participants completed questionnaires measuring depressive symptoms and positive and negative relationship qualities, and engaged in a recorded conflict resolution task with their partner. Conversations were evaluated with a video-recall procedure on dimensions of positivity and negativity. Analyses revealed that depressive symptoms were significantly correlated with both low levels of positivity and high levels of negativity during the interaction and in the relationship generally. Results indicate the importance of supportive communication skills in adolescent couples to prevent the onset of depressive symptoms.

Future plans: My long-term goal is to pursue a PhD in Clinical Psychology so that I may work with military couples and families. This fall I will either be pursuing my master's in Clinical Psychology, or working as a researcher to gain more experience before I apply to PhD programs.

Joshua Allen Little

Biology

Waterford, ME
Oxford Hills Comprehensive High School

***The use of genomic "Knock-in" strategy to examine the role of the Protein acyl transferase (DHHC) family of enzymes using* Dictyostelium discoideum**

Advisor: Robert Gundersen

Thesis description: Protein palmitoylation, the enzymatic attachment of the 16 carbon fatty acid Palmitate to a protein, has been shown to play a role in many human ailments such as schizophrenia, cancer and Huntington's disease. By 'knocking-in' a florescent jellyfish protein to the end of the target palmitoylating enzyme we hoped to see when these genes were being expressed in *Dictyostelium Discoideum*.

Future plans: I plan to attend the University of New England to study Physical Therapy

Tyler R. Littlefield

Chemical Engineering
Mathematics

Windham, ME
Windham High School

Analytical Determination of Paper Gloss from Surface Roughness

Advisor: Douglas W. Bousfield

Thesis description: The goal of my thesis was to derive a function that could easily convert between paper gloss and the surface roughness of paper (or vice versa). This was accomplished by applying geometric optics to a theoretical surface and calculating the outcome. Properties such as specular regions, masking and shadowing, Fresnel coefficients, and diffuse gloss were taken into account.

Future plans: I plan to pursue a career in the semiconductor industry.

Kendra Janelle MacDonald

Animal and Veterinary Science (Pre-Veterinary Concentration)
Neuroscience

Wells, ME
Wells High School

Testing the Effects of Grapefruit Seed Extract (GFSE) on the Mastitis-causing alga, Prototheca

Advisor: Anne Lichtenwalner

Thesis description: Mastitis is an infection of the mammary gland that costs the United States dairy industry between $1.7 and $2 billion annually. Approximately 95% of mastitis infections are caused by bacteria. However, mastitis infections can also be caused by the alga, *Prototheca*, for which there are no approved treatments. This experiment aimed to test the effects of grapefruit seed extract (GFSE) on *Prototheca zopfii*. There have been studies that show GFSE has antimicrobial properties against many bacteria and fungi, including yeast (a close relative to *Prototheca*). It is also water soluble, inexpensive, and has the potential to be a legal treatment. It was found that concentrations of 2,000µg/mL of GFSE were ineffective at inhibiting or even slowing the growth of the *P. zopfii* colonies. Future research involves higher concentrations of GFSE.

Future plans: I plan to spend the summer working at the restaurant my father manages. I plan to re-apply to veterinary schools this fall, and also attend veterinary technician courses and work part-time. My ultimate goal is to earn my DVM and practice in equine medicine.

Jennifer E. MacDowell

Biochemistry

Littleton, MA
Acton Boxborough Regional High School

A Novel Mechanism for Mechanosensing by Endothelial Cells

Advisors: Sharon Ashworth, Alireza Sarvestani

Thesis description: The formation of new vasculature is an essential process, but can also be utilized by cancerous cells. Angiogenesis requires the directed migration of the endothelial cells lining the nascent blood vessels. This process is largely mediated by integrin, which plays a key role in the interplay between sensing a force in the extracellular matrix (ECM) and transducing this signal, a process termed mechanotransduction. Integrin mediates internal and external cell signaling, promoting growth of focal adhesions and subsequent cell spreading and migration. In order to study focal adhesion dynamics related to force, we studied the mobility of integrin on three different substrates using fluorescent recovery after photo-bleaching and cell traction force measurements. These studies serve to further the understanding of our knowledge of integrin and its role in mechanotransduction and migration. It will, therefore, aid in the advancement of both tissue engineering and cancer treatment research.

Future plans: This June I am hiking the Via Jacobi, a 430km long pilgrimage route across the length of Switzerland. In the fall I will be attending Tufts Medical School.

Molly M. McGuire

English

Legal Studies

Tucson, AZ
Hodgdon High School

Visions of the Eternal Now: Blake's America and the Cultural Revolution of the 1960s

Advisor: Kathleen Ellis

Thesis description: The notion of William Blake as "prophet" has been a sensitive topic within Blakean scholarship. This thesis considers America, Blake's first continental prophecy, and interprets it based on Blake's own conception of the role of a prophet. By comparing the utopian and apocalyptic elements of America's political revolution to those of the cultural revolution of the 1960s in the United States, support is garnered for Blake's allegorical (as opposed to supernatural) prophecy. This comparison is enhanced by a section on the Beat Poet, Allen Ginsberg, who acted as a paradigmatic representation of Blake during both the 1950s and the 1960s. As a result, the prophetic nature of America is redeemed, and the book can be read as the author intended.

Future plans: Following graduation, I will be attending the University of Maine School of Law in Portland, Maine where I hope to focus on women's rights and environmental issues.

Amy Marie Michaud

Biology

Chemistry

Westfield, ME
Presque Isle High School

Alteration of the Microflora of the Facultative Parasitic Nematode* Pristionchus entomophagus *and its Potential Application as a Biological Control Agent

Advisor: Eleanor Groden

Thesis description: *Pristionchus entomophagus* is a microbivorous, facultative parasitic nematode commonly found in soil and decaying organic matter. This nematode can form an alternative juvenile life stage capable of infecting an insect host, including the invasive European fire ant (*Myrmica rubra*). The microflora of *P. entomophagus* is highly variable and may contribute to host mortality. The goal of this project was to develop protocols to transfer labeled bacteria to *P. entomophagus*, and then assess transfer of the labeled bacteria to an insect host via exposure to altered nematodes. Successful inoculation of the nematodes and transfer to the insect would provide a method to enhance virulence of *P. entomophagus* for use against *M. rubra* and other pest insects. *P. entomophagus* with artificially enhanced virulence is a potential biological control agent of pest insects.

Future plans: I plan to return to England for the summer and travel before applying to graduate programs in parasitology, public health, or infectious disease.

Patrick Pittis

Communication

Theatre

Bangor, ME
Bangor High School

***Staking Out Gender - A Poststructuralist Analysis of Gender Roles and Identity in* Buffy the Vampire Slayer**

Advisor: Diane Keeling

Thesis description: I studied the rhetoric and semiotics of the cult show *Buffy the Vampire Slayer*, tracing its depiction of gender as an unfixed, malleable aspect of identity rather than the oppositional male/female binary that dominates traditional popular culture rhetoric. This subversive gender and genre work are indicative of the show's own agency and places Buffy the Vampire Slayer in a specific cultural moment of shifting gender norms, as evidenced by the disparity between those texts that came before the show and those that came after.

Future plans: After graduation, I will be moving to Los Angeles where I will be working and studying to become a television producer.

Caroline Reed

Marine Science

Brunswick, ME
Erskine Academy

Devising a Method for Identifying Humpback Whales Using Underwater Video and Full Body Scar Mapping

Advisor: Andrew Pershing

Thesis description: Currently, humpback whale populations are assessed based on stock estimates calculated through mark-recapture methods predominantly involving photo-identification of individuals via unique fluke pigmentations. This technique is biased because of individual heterogeneity. This thesis involves the development of a protocol using a photo-identification technique that utilizes underwater video footage to extract still images of whales' entire bodies. Underwater footage is advantageous because it helps to alleviate individual heterogeneity and increases the number of whale features available for identification. In this protocol, scars are mapped for each whale to create a catalog against which future images can be compared. This method was evaluated by allowing multiple judges to examine different images of the same whale. Overall, judges were able to accurately declare a negative or positive match.

Future plans: Upon graduation, I plan to hike the Appalachian Trail before returning to academics to pursue a master's degree in marine biology.

Haley Richardson

Secondary Education (Life Sciences)

English

Machias, ME
Shead High School

Classroom Realities: Teaching Students with Disabilities as a Traditionally or Alternatively Certified Secondary Science Teacher in Maine

Advisor: John Maddaus

Thesis description: This study aimed to determine the characteristics of effective pre-service instruction and in-service professional development based on a certification route that affects Maine secondary science teachers' preparedness to accommodate students with disabilities. Traditional and alternative certification routes differ in fundamental elements such as length, course requirements, and format, leading to teachers who have different strengths and weaknesses, and consequently, different professional development needs. Effective preparation for instructing students with disabilities is an important issue because the trend toward full educational inclusion increasingly will require that classroom teachers have the skills to make appropriate accommodations.

Future plans: I aspire to teach science abroad, earm a master's degree, adopt at least one child, and eventually return to Maine.

Caroline Robe

Studio Art

Art History

Waterville, ME
Waterville Senior High School

Mapping Bliss: A Narrative Polyptych in Egg Tempera

Advisor: Ronald (Ed) Nadeau

Thesis description: My painting is an attempt to convey an honest and pluralistic narrative, using the tenants of mythology and the physical structure of Renaissance liturgical artwork. While the painting retains its own title, the project is called "Mapping Bliss" because it is a narrative regarding the pursuit of bliss. The narrative scope of the painting addresses creative activity, self-affirmation, and the celebration of the vernacular environment. These themes culminate in an emphasis on female power, nature, and production. Framed within a mythological and symbolic field incorporating meaning from sources as diverse as modern music, Christian mythology, and film, the subject matter is elevated from quotidian to transcendental. The large format and architectural framing of the painting similarly elevate the subject matter. This anachronistic treatment of contemporary themes draws attention to the beauty and worthiness of corporeal, secular reality.

Future plans: Upon graduation I plan to continue to paint and apply for residencies in Europe.

Mark A. Rucci

Political Science

Legal Studies

Millinocket, ME
Stearns High School

Safe to Drive? Police Powers of Search and Seizure in the Vehicular Context

Advisor: Timothy Cole

Thesis description: This study seeks to find out how well college students on the University of Maine campus know both police powers of search and seizure as well as what their rights are in vehicular search and seizure situations. A questionnaire was distributed throughout Greek life on the University of Maine campus, the results of which were compiled and analyzed in order to gain insight into how well students understand their rights. Through this we can learn how much young people know about the rights and responsibilities that come with obtaining their license. This question is of more than passing importance in light of current Supreme Court rulings trending toward expansion of police power. Finally, I will assess the question of significance: How and to what extent should public education inform individuals of their rights?

Future plans: After graduation I plan to attend Maine Law School in Portland with the hope of attaining my J.D. My ultimate goal is to practice criminal law in Southern Maine.

Hannah L. Ruhl

Human Nutrition

Sustainable Food Systems

Lincoln, ME
Mattanawcook Academy

Slow Food: From Farm to Healthy Body

Advisor: Dorothy Klimis-Zacas

Thesis description: Slow Food is a multinational movement focused on nutritious, pure and tasty food. Specifically, food that is good contains higher nutrient levels than conventional food and is therefore more nutritious. Clean food is free of chemical fertilizer and pesticide residues and fair food is economically viable to both the producer and the consumer. Slow Food is also focused on the three pillars of sustainability which are environment, society and economy. This thesis explores how current research supports the adoption of this movement into communities in order to improve their health and lower risk for chronic disease.

Future plans: I hope to continue in the community nutrition field, educating others about healthy eating in order to lower the incidence of chronic disease in the United States, either through the route of public health and epidemiology or through policy and education. My goal is to help people understand food, from agriculture to preparing a meal for their families.

India Irene Stewart

Biology

Premedical Studies

Harmony, ME
Bucksport High School

Vitamin D Pathway Polymorphisms and their Contribution to the Etiology of Multiple Sclerosis (MS)

Advisor: Keith Hutchinson

Thesis description: Multiple Sclerosis (MS), a chronic autoimmune disease of the central nervous system, has causes involving both genetic and environmental factors. Studies have shown a higher prevalence of MS in increasing latitudes of both hemispheres. The latitude specific environmental factor thought to be responsible for the correlation is sunlight exposure, which influences Vitamin D levels. A list of candidate genes was constructed using a genome-wide association study identifying regions of the genome associated with MS, a microarray study of Vitamin D Receptor regulated genes, and a literature review to identify connections between genes involved in both MS and Vitamin D. Using genomic and pathway databases, sixteen human genes with single nucleotide polymorphisms and supportive evidence for a connection to MS were identified. Candidate genes will provide a starting point for future research into the molecular mechanisms linking MS and Vitamin D.

Future plans: I will be attending the Tufts University School of Medicine in the fall of 2013, and I hope to become a practicing physician in the beautiful state of Maine.

Matthew Tieszen

English

Fishers of Men

Advisor: Richard Brucher

Thesis description: Fishers of Men takes place in near-future New York City. Ravaged by a severe hurricane, much of the city is in ruins. The Bronx has been hit hardest out of the still-habitable portions of the city, and has been overrun by gangs. This, the protagonist,Tome, concluded, was the perfect place to run his operation; hiding in plain sight from his enemies, he assembles a motley crew of people with incredible, superhuman abilities. With this dysfunctional family of superheroes, Tome plans to save the world.

Andrew Tomes

Botany, English

Camp Hill, PA
Cedar Cliff High School

Evaluating Wetland Restoration Standards Through a Case Study on the University of Maine Campus

Advisor: Christopher Cronan

Thesis description: My thesis focused on the process of restoring impacted wetlands under Section 404 of the Clean Water Act. This statute requires that wetlands that are destroyed by development must be offset by creating new ones or restoring old ones. Such a project is currently underway at UMaine. The University restored some wetlands that were destroyed a few decades ago by construction of campus improvements. Areas on campus that had been impacted were dug out and planted with thousands of trees and shrubs. For my research, I examined the physical features of each of the restored sites to see if they matched what we'd expect from a natural wetland, and I made sure all the plantings were surviving. I used this research to produce recommendations for the remaining four years of monitoring.

Future plans: Next fall, I will be working on my master's at State University of New York, College of Environmental Sciences and Forestry in Syracuse, New York.

Elizabeth Tull

Psychology

Legal Studies

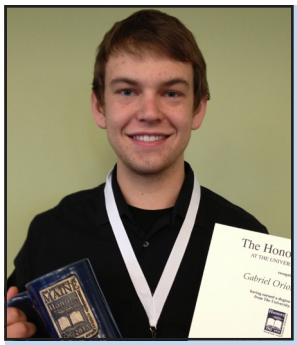
Eddington, ME
West Ottawa High School (Holland, MI)

Inequality and Health: Stress Mediates the Relationship Between Subjective SES and Wellbeing

Advisor: Shannon K. McCoy

Thesis description: Socioeconomic status (SES) is related to a variety of health problems ranging from obesity to mental illness. Objective indicators, such as educational level and income, are often used to measure a person's SES. However, research shows that a person's subjective SES, an individual's perception of his/her socioeconomic status relative to others in society, may be a better predictor of wellbeing than objective SES measures. Further, stress associated with the perception of being of low SES could be linked to negative health outcomes. My thesis project sought to examine these relationships using structural equation modeling. I compared participant's subjective SES and objective measures of SES to indicators of wellbeing, specifically stress, body mass index, general health, and self-esteem. I found that subjective SES was a better predictor of indicators of wellbeing than objective measures of SES and that stress mediated these relationships.

Future plans: I will be attending the University of Maine School of Law as a member of the Class of 2016.



Gabriel Vachon

Biology

Chemistry

Ellsworth, ME
Ellsworth High School

Effects Of Arsenic Responsive p21 On Innate Immunity And Apoptosis In Zebrafish

Advisor: Carol Kim

Thesis description: Arsenic is a heavy metal often found in drinking water in the Northeastern US and is thought to be involved with many negative health conditions. This project examined the impact of this environmental toxicant on the zebrafish innate immune system through characterization of the gene encoding for the protein p21 (*cdkn1a*), which is induced by low-levels of arsenic exposure. In an attempt to determine possible results from *cdkn1a* induction, this project examined how this gene and other apoptotic and immunity genes interact through experiments involving the gene encoding for p53, the little-studied *tnfaip8l1* gene, and *PUMA*. The study employed techniques to induce or suppress the expression of individual genes to examine downstream effects. This project increases our understanding of crucial apoptotic and cell cycle regulation pathways that may be altered as a result of exposure to 'safe' arsenic concentrations.

Future plans: Following graduation I plan to attend medical school and eventually practice medicine here in Maine.

Alejandro Velez

Biochemistry

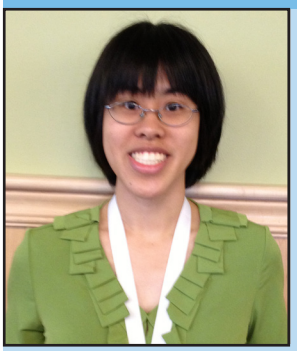
Pereira, Colombia
New Berlin High School (New Berlin, IL)

Investigation of The Mechanism Underlying Arsenic Disruption of Mast Cell Degranulation

Advisor: Julie Gosse

Thesis description: Exposure to arsenic (As) is a global health concern. Prolonged exposure to this metalloid has been linked to cardiovascular disease, reproductive and developmental abnormalities, cancer, and other diseases. Some of the adverse health effects of As may be linked to its ability to alter cellular signal transduction. Recently, published work from the Gosse laboratory has shown that inorganic arsenite inhibits the signaling cascade leading to mast cell degranulation, a vital immune function, through an as-yet unknown mechanism. Our recent data has shown that arsenic may be interfering with the phosphorylation of Syk, a vital protein involved in mast cell degranulation. Although the exact mechanism is far from being elucidated, these findings can help to better understand the mechanism of toxicity of arsenic in signaling pathways similar to degranulation.

Future plans: I plan to acquire my master's in public health at the University of South Florida. At a later time, I will be applying to medical school.



Aimee Young

Zoology

Native American Studies

Bedford, MA
Bedford High School

Foraging Behavior of Eastern Gray Squirrels on the University of Maine Campus

Advisor: William Glanz

Thesis description: The goal of my study was to observe the foraging behavior of Eastern Gray Squirrels (*Sciurus carolinensis*) on the University of Maine campus. The study tested whether squirrels in a more urban setting could estimate the energetic profitability of a food item and follow the optimal foraging theory, or if rarity of a food type played a greater factor in food selection. I also examined whether urban squirrel behavior mimicked that of wild squirrels when presented with a food type that was uncommon on campus, but common in other parts of Maine, specifically the acorns of the white oak tree (*Quercus alba*).

Future plans: I currently work at a dog kennel in my hometown and will continue to do so over the summer. In the future I would like to try my hand at zoo-keeping or perhaps conduct research associated with zoos.

Celebration 2013

The Honors Celebration was always Charlie's favorite day of the school year, and we are honored to continue the tradition he started. At the 2013 celebration, we once again recognized the impressive accomplishments of our graduates. In keeping with tradition, interim dean David Gross personally read the name and thesis title of every graduate before they received their medallion and stein.

Class of 2014 Preview

Although this is the 2013 edition of Minerva, we are so excited about some of the work our current thesis students are doing; we just can't wait until the next issue!

Take biology major **Kimberly Dao** (left) from Saco, ME, for example. As a pre-med student, it probably doesn't come as a shock that Kim's thesis has ties to health. She is examining the effects of sex steroid hormones on the reproductive processes in goldfish. Previous studies have shown that hormones like estradiol (one of the estrogens) can cause rapid behavioral changes in certain species. Kim's research focuses on how estradiol affects the goldfish in a sexual social context.

Abraham Hamilton (right), a mechanical engineering major from Whitefield, ME is also working on a medically-related thesis. He is collaborating on a project to develop a cheap, single-use device that can effectively circumcise adults in sub-Saharan Africa. Circumcision has been shown to reduce the risk of HIV infection by approximately 60% in heterosexual males, and this device could reduce risk to both the doctors and patients involved. This project is a part of Abraham's engineering Capstone, and he plans to conduct the finite element analysis and optimization of this device as his thesis work.

Christine Gilbert (left) of Doylestown, PA has chosen to focus on the health of the planet rather than human health in her thesis. Christine is an international affairs major with a German concentration and business administration minor, and her thesis examines how Al Gore's film *An Inconvenient Truth* changed the discourse surrounding the word "sustainability." She'll be looking at newspaper articles published two years prior to and after the release of the film to see how and if the discourse changed.

Nabeel Hashmi (right) grew up just a little ways down the road in Veazie, ME. As a biochemistry and molecular & cellular biology major, Nabeel's thesis is keeping him busy in the lab. He is studying the enzyme PIN1, which has been linked to several cancers and Alzheimer's Disease. PIN1 may be involved in the control of the calpain/calpastatin system, which is also implicated in signaling involved in the pathogenesis of diseases like cancer and Alzheimer's. Nabeel seeks to biochemically confirm or disprove the direct control of calpastatin by PIN1.

English major **Bailey O'Brien** (left) from Gorham, ME, is embarking on the creative thesis journey. She plans to explore various methods of storytelling (short story, monologue, short play, etc.) and what effect these forms have on the story's interpretation and the process of storytelling as a whole.

We anticipate featuring over 90 thesis writers in the 2014 edition of Minerva, so this is only a small sampling of the great work our students are doing. Be sure to check back next year for the full feature!

A Visit With Jennifer MacDowell '13

Please tell us about yourself.

I graduated this past May from the University of Maine with a degree in biochemistry. I have so many fond memories from my four years spent at UMaine: playing softball in the snow, studying for hours in Fogler library, laughing with friends in the Union, trudging across campus on Wednesdays for "buff chik," yelling "sieve!" at the opposing goalie in Alfond Arena. I was fortunate to be a member of the UMaine softball team, part of the Honors College, and also had the opportunity to study abroad in New Zealand my sophomore year.

What was your thesis topic and how did you come to choose it?

Towards the end of my junior year I started looking into finding a thesis advisor by researching the different labs on campus. I met with a few professors before stumbling upon Ali Sarvestani's and Sharon Ashworth's work on mechanical forces and migration. I was really intrigued by the area of research they were focusing on because it was different than anything I had previously learned in my classes.

My thesis focused on the effect of substrate rigidity on endothelial cell adhesion. In order to migrate, endothelial cells must interact with surrounding extracellular matrix proteins, such as fibronectin, with cell adhesion receptors, or integrins. During angiogenesis, proteolytic enzymes are released which degrade the ECM proteins in the local environment, remodeling the substrate in front of the nascent blood vessel. We hypothesized that a more rigid substrate would facilitate a stronger adhesion, while a softer substrate would facilitate less adhesion and stronger migration forces. Studies have shown that certain cancers can resist chemotherapy treatment through integrin mediated protection from the toxicity. Understanding integrin and the properties of endothelial cell adhesion, therefore, is key to developing better chemotherapeutic drug agents and furthering our knowledge of angiogenesis.

Why was Honors important?

The Honors College really broadened my perspective during my four years at UMaine. Being a science major, it is so easy to have tunnel vision and lose sight of the bigger picture. Honors forced me think about things in new ways. I really enjoyed the *Civilizations* Sequence the first two years. The small classes gave me a sense of community in the larger school. I am so glad I decided to do a thesis project my last year, as well. It was a challenging, but incredibly rewarding experience!

Tell us a bit about your trip on The Way of St. James.

I spent my first month out of college with a pack on my back hiking across Switzerland, starting on the German border and ending in Geneva. I read a book the summer before my senior year about a doctor who spent a few years hiking a pilgrimage in Spain called the Way of St. James. I knew that was exactly what I wanted to do the summer before I went to medical school. So with only the clothes on my back, a tent and some other camping supplies, I headed off for Switzerland in June without much of a plan. I was hoping to spend some time reflecting on the past four years and looking forward to the incredible journey I was soon to embark on in the fall. I walked through rolling green hills along a route that pilgrims have been walking for thousands of years. I met others along the way who had come to the Way for many different reasons, but all with the same goal: to walk. I slept outside, in abbeys, and even in the homes of the welcoming Swiss. It was a truly remarkable experience that challenged me both physically and mentally, making me the better for it!

What are you doing next, and what advice can you give future Honors students?

I am currently in my first year at Tufts Medical School in the Maine Track program. I spend my days studying, shadowing doctors, interviewing patients, and just enjoying every second of it all! I think the only advice I would give to future Honors students is to spend your years at UMaine challenging every aspect of yourself and to soak it all in!

Thanks for your generous support!

Much of what we do here in Honors to enrich the educational opportunities available to our students is only possible because of the gifts of generous donors. Your gifts make possible scholarships and study abroad opportunities, research funding and thesis fellowships, conference travel for students, and our distinguished lecture series. The tremendous outpouring of support for Charlie's Terrace this past year also showed the dedication and commitment of our Honors community. We truly appreciate all that you do.

It is a pleasure to acknowledge the following donors to the Honors College between July 2012 and December 2013:

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The pink ladies -- Sarah McPartland-Good (UMaine Foundation), Beau Rezendes, and Barbara Ouellette (Honors College) at the 2013 John M. Rezendes Ethics Essay Awards Luncheon

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Sue Hunter (Vice Chancellor for Academic Affairs) and Jeff Mills (President, UMaine Foundation) at the Terrace Opening (Photo Credit: Adam Kuykendall)

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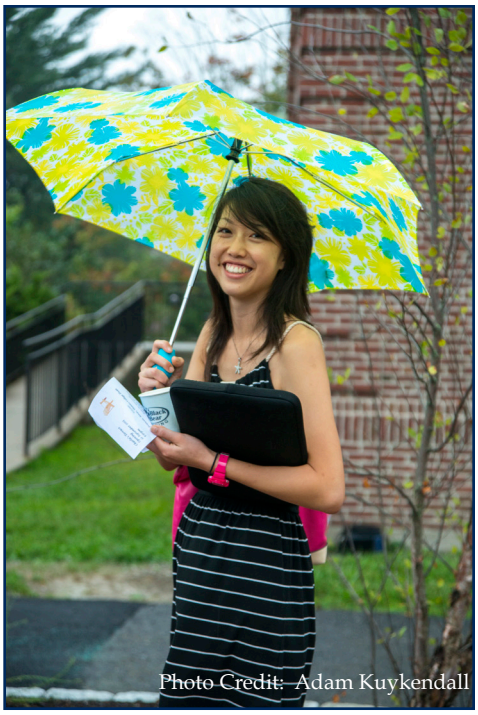
The Honors Staff on a snowy Terrace



Courtney Qi '16 at the opening of Charlie's Terrace

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Paige Eggleston '13, Morgan Kinney '14, and Kimberly Dao '14 at the Homecoming event on Charlie's Terrace

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